

HARBOR-UCLA MEDICAL CENTER
Department of Nursing

Self Study Guide
2010

reorientation

REORIENTATION: SELF STUDY GUIDE

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REORIENTATION: SELF STUDY GUIDE

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PREFACE

This study guide is designed to update each employee on important issues that assist them in providing safe patient care.

Reorientation consists of two sections:

Mandated Section

Patient Care Management: Body mechanics, ergonomics, HIPAA and confidentiality of data and information, use of restraints, interpreter services, hand-off communication, family violence, pain management, and Emergency Medical Treatment and Active Labor (EMTALA). **Infection Control Issues:** Transmission of infectious diseases, bloodborne pathogens and healthcare workers, and tuberculosis. **Environment of Care Issues:** electrical/utility and fire/life safety, emergency preparedness, security, hazardous materials communication and safety program and radiation safety.

Clinical Competencies

Two clinical competencies that have been identified are related to **Rapid Recognition and Response to Changes in Patient Condition and Blood Products and Transfusion**. These competencies are required by the majority of licensed nurses throughout the hospital.

The following table describes which employees must complete the above sections of Reorientation.

Appropriate Personnel	Mandated Section (infection control, environment of care, etc.)	Clinical Competencies
Direct care giving Registered Nurses/Interim Permittee	X	X
Non-direct care giving Registered Nurses	X	_____
Nurse Practitioners (Nursing Department only)	X	X
Licensed Vocational Nurses	X	X
Student Workers	X	_____
Nursing Attendants	X	_____
Nursing Escort Staff	X	_____
Intermediate Clerks/Unit Secretaries	X	_____
Intermediate Clerks/Unit Secretaries in non-patient care areas (e.g., CPD, NSO)	X	_____
Direct care giving Technicians	X	_____

If your position is not listed in the table or you are not sure in which category you belong, consult your immediate supervisor.

ABOUT THIS STUDY GUIDE

*If you are required to complete the **MANDATED SECTION**, please read the following:*

All employees of the Nursing Department will obtain and read the Nursing Department Reorientation Self Study Guide annually and sign an agreement of understanding stating they have read, understand, and will apply the concepts from the Self Study Guide Mandated Section. In addition, all employees in the Nursing Department will independently complete an open book exam on the Mandated Section of this Self Study Guide. The answer sheet must be submitted to the Clinical-Professional Development staff in Building N-18, Monday through Friday (except county holidays) between 0730-1630.

*If you are required to complete **CLINICAL COMPETENCIES**, please read the following:*

The table on the previous page identifies nursing department licensed staff that are required to complete the Clinical Competencies annually. The material you will need to review to successfully complete the written examination is included in this self study guide.

IT IS IMPORTANT THAT YOU READ THE STUDY GUIDE PRIOR TO TAKING THE CLINICAL COMPETENCY EXAM OR YOU WILL BE ASKED TO RETURN TO YOUR WORK AREA.

NURSING DEPARTMENT REORIENTATION SELF STUDY GUIDE: MANDATED SECTION

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INSTRUCTIONS FOR COMPLETING MANDATED SECTION

1. Review the content in each section.
2. Complete the study questions at the end of each section.
3. Check your answers against the answer key provided at the end of each set of questions.
4. Complete the Mandated Section and Clinical Competency (licensed staff as appropriate) test(s) and answer sheet. Tests and answer sheets are available from your Nurse Manager, Parlow Library, or Building N-18.
5. Clinical Nurse Specialists, Clinical Nurse Educators, and Nurse Managers are available to answer any questions you have regarding the Reorientation Self Study Guide and its contents.
6. Submit the completed Reorientation Mandated Section and Clinical Competency (licensed staff as appropriate) test(s) and answer sheet to Clinical-Professional Development staff in Building N-18, Monday through Friday (except county holidays) between the hours of 0730-1630.
7. Return the Reorientation Self Study Guide from where you obtained it (Nursing Resources, Nurse Manager, Building N-18, or Parlow Library).
8. **PLEASE DO NOT WRITE IN THE MANUAL**

PLEASE SEE FOLLOWING PAGE

BODY MECHANICS

Objectives:

Upon completion of this section, the employee will be able to:

1. Identify two advantages of utilizing proper body mechanics
2. Describe how to establish proper balance in performing daily tasks
3. Differentiate between proper and improper technique when lifting and carrying heavy objects

Instructions to the Employee:

Please read the following section, then answer the study questions at the end of this section.

BODY MECHANICS

I. INTRODUCTION

It is important to understand human movement in order to prevent injury while performing tasks. There are mechanical principles or rules that govern all movement and determine what the body can and cannot do. These principles apply regardless of the type of activity involved. Body mechanics is the application of laws of physics to the human body at rest or in motion.

II. REASONS FOR USING PROPER BODY MECHANICS

- A. To prevent injury to self or patients
- B. To prevent fatigue
- C. To maintain good general health and physical appearance
- D. To increase capacity to work comfortably
- E. To increase productivity

III. PROPER BODY MECHANICS

A. Use proper lifting technique

1. Place feet apart to provide an adequate base of support, which will assist in maintaining balance.
2. When lifting an object, keep it as close to one's body as possible.
3. Maintain the inward curve of one's lower back at all times.
4. Point one's feet in the direction of movement.
5. Bend one's knees and hips to get down to the level of the work. Do not overreach, especially when handling large bulky objects.
6. Center oneself over the load.
7. Lift the load straight up, keeping one's spine in a neutral position. Lift/pull with one's body weight.
8. Lift with one's legs, NOT one's back.
9. Do not twist or turn suddenly when lifting or carrying.
10. Set an object down properly; lower object by bending one's hips and knees, letting one's legs do the work.
11. Always push, not pull, an object when possible.

B. Use proper posture when sitting, standing or reclining

1. When **standing** correctly, the spine has a natural "S" curve. The shoulders are back and the "S" curve is directly over the pelvis.
2. When **sitting** correctly, knees should be at a 90° angle. Hips should be positioned to the rear of the chair with the lower back not overly arched. Use a towel roll behind one's lower back to

maintain the inward curve. Shoulders and upper back are not rounded.

3. When **reclining** correctly, lie on one's back or, alternatively, on one's side with knees bent. Lying on one's abdomen places strain on the spine.
- C. Change positions frequently
 1. Get up and stretch frequently if one is required to sit for long periods.
 2. Change foot positions often if one is required to stand for long periods. Use an object/step stool to shift one's weight. Keep one's weight evenly balanced when standing.

IV. CAUSES OF BACK INJURY

- A. Poor posture/poor body mechanics
- B. Decreased flexibility
- C. Lack of physical fitness
- D. Poor work habits
- E. Repetitive trauma
- F. Accidents

V. GUIDELINES FOR PREVENTING MUSCULAR AND SKELETAL INJURY

The body can be thought of as a machine which must be used correctly to maintain health and efficiency. Consider the following guidelines:

- A. Plan ahead
 1. Assess the work to be done.
 2. Ensure one can lift/carry the load.
 3. Request help when necessary.
- B. Use good body mechanics
- C. Make sure one's path is clear
- D. Check equipment for safety
 1. Lock all brakes on wheeled equipment such as beds, wheelchairs, gurneys, etc. before moving patient to and from wheeled equipment.
- E. Obtain patient's cooperation
 1. Be sure the patient understands what is going to happen.
 2. When working with another person, plan timing of movement for a smooth action.

F. Lifting or moving

1. Grip objects securely.
2. Whenever possible, slide patient or object over a friction-free surface rather than lifting.
3. Use a step stool to get closer to objects above shoulder level.
4. Stay in shape by following a sensible diet and exercise program.

PLEASE COMPLETE STUDY QUESTIONS**BODY MECHANICS**
Study Questions

Select the best answer to each question. **DO NOT** write in the manual.

1. Which of the following are expectations of using good body mechanics?
 - a. Prevention of injury to self and patient
 - b. Increased capacity to work comfortably
 - c. Maintenance of general good health and a safer environment
 - d. All of the above
2. When lifting items to balance oneself correctly, one must
 - a. Lift with one's back
 - b. Place feet close together
 - c. Keep knees and hips straight
 - d. Keep the item as close to one's body as possible
3. Proper balance may be established by which of the following?
 - a. Keeping weight on one foot only
 - b. Placing feet apart and centering oneself
 - c. Keeping feet together and leaning forward
 - d. Tilting backward slightly while spreading feet apart
4. Which of the following guidelines should be followed when carrying heavy objects?
 - a. Lean backward
 - b. Hold the object at arm's length
 - c. Use whatever method is comfortable
 - d. Hold the object as close to the body as possible

Answers to Study Questions

1. d
2. d
3. b
4. d

If you answered all of the questions correctly, go on to the next section. If you missed one or more, read the content again and repeat the study guide questions.

Bibliography

Body mechanics-computer. In: *Hospital and Medical Administration Policy and Procedure Manual*. Torrance, CA: Harbor-UCLA Medical Center; 2006. Policy No. 463.

Body mechanics-exercises to relieve muscles in sustained positions. In: *Hospital and Medical Administration Policy and Procedure Manual*. Torrance, CA: Harbor-UCLA Medical Center; 2006. Policy No. 464.

ERGONOMICS

Objectives:

Upon completion of this section, the employee will be able to:

1. Define the term “ergonomics”
2. Describe selected ergonomic risk factors that could be identified in the workplace
3. Identify selected signs and symptoms that could indicate existence of ergonomic risk factors
4. State the procedure for reporting ergonomic issues

Instructions to the Employee:

Please read the following section, then answer the study questions at the end of this section.

ERGONOMICS

I. INTRODUCTION

Ergonomics is the study of people and their physical relationship to their work. For most settings, this refers to the relationship of the worker's body to the equipment and materials he or she handles. Information obtained from the study of people and their work can help prevent, reduce or eliminate injuries.

II. ERGONOMICS PROGRAM

Harbor-UCLA Medical Center has an ergonomics program. The basic elements of this program include:

- A. Analyzing worksites where injuries have occurred, or are suspected to have risk factors present that may cause injuries.
- B. Controlling risk factors:
 1. Engineering controls involve adjusting or modifying the physical layout of the job or equipment so that awkward body positions are reduced.
 2. Administrative controls involve managing the timing and/or patterns of job tasks to reduce the duration, repetition, and force required to get the tasks done without causing injuries.
 3. Staff training and education.

III. RISK FACTORS THAT MAY LEAD TO INJURIES

The main risk factor on the job is lifting and transferring patients, supplies, or equipment. Other risk factors can be at a desk, computer or other workstations. A combination of the following risk factors may include:

- A. Repetitive motions
- B. Awkward postures/position – joint positions that are not in the natural resting position
- C. Static postures – positions held without moving
- D. High force demands – for pulling, pushing, lifting and gripping
- E. Mechanical compression of soft tissues – resting hands or forearms on the sharp table edge

IV. SIGNS AND SYMPTOMS TO INDICATE RISK FOR INJURY

- A. Numbness or tingling in the arms or hands
- B. Weakened grip
- C. Decreased range of motion in the arms or hands
- D. Swelling in the arms, hands, or fingers
- E. Weak or painful arms, hands, wrists, shoulders, neck, or back

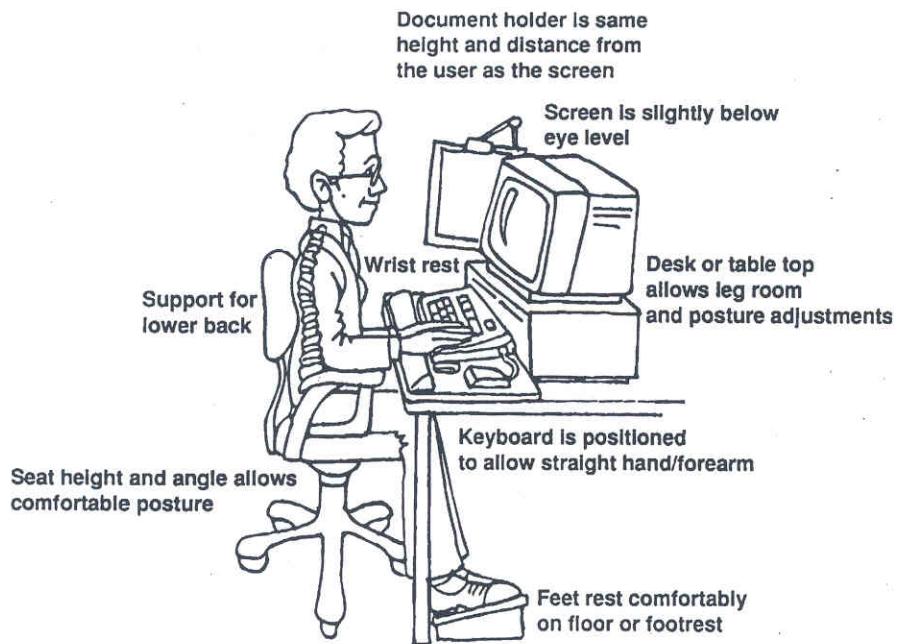
V. PREVENTING AND REDUCING RISK FACTORS THAT MAY LEAD TO INJURIES

- A. Reduce or avoid repetitive motions.
- B. Reduce the amount of force needed to perform job tasks.
- C. Reduce awkward or difficult movements, reaches, and stretches by reorganizing the work area – move parts closer to you, change the work surface height, etc.
- D. Use the right tool for the job – and use it correctly.
- E. Use proper lifting techniques.
- F. Use proper posture when standing or sitting.
- G. Use good body mechanics.
- H. Use appropriate equipment – lifts, transfer belts, bed scales, etc.
- I. Change job tasks.
- J. Properly store materials – on storage rack heaviest materials are placed between 15 inches – 45 inches where bending stresses are reduced, moderately heavy items on the bottom racks between 2 inches – 15 inches and lightest materials on the top racks at 45 inches – 60 inches.
- K. Lock brakes on wheeled equipment (eg, beds, wheelchairs, gurneys, etc.).

VI. PREVENTING INJURIES RELATED TO COMPUTER WORKSTATIONS

- A. Maintain good posture when working. Sit all the way back in the chair against the backrest. Keep your knees equal to, or lower than your hips with your feet supported.
- B. Keep your elbows in a slightly open angle (100 – 110 degrees) with your wrists in a straight position. The keyboard tilt can help you attain the correct arm position.
- C. Avoid overreaching. Keep the mouse and keyboard within close reach. Center the most frequently used section of the keyboard directly in front of the user.
- D. Center the monitor in front of the user at arm's length distance and with the screen slightly below his/her eye level. One should be able to view the screen without turning or tilting one's head up or down.
- E. Place source documents on a document holder positioned between your monitor and keyboard. If there is not enough space, place documents on an elevated surface close to the user's screen.
- F. Use good typing technique. Float your arms above the keyboard and keep your wrists straight when keying. If one uses a wrist rest one must use it to support his/her palms when pausing, not while keying.
- G. Hit the keyboard with light force. The average user keys four times harder than necessary.
- H. Limit repetitive motions. Reduce keystrokes with macros and software programs. Reduce using the mouse with scroll locks and keystroke combinations.
- I. Keep wrists straight and hands relaxed when using the mouse with a tight grip or extended fingers above the activation buttons. Avoid moving the mouse with one's thumb or wrist. Movement should originate at one's shoulder and elbow.

- J. Customize your computer settings. The screen font, contrast, color, etc. can be adjusted to maximize comfort and efficiency.
- K. Reduce glare. Place one's monitor away from bright lights and windows. Use an optical glass glare filter when necessary.
- L. Take eye breaks and intermittently refocus on distant objects.
- M. Work at a reasonable pace and take frequent stretch breaks. Take 1 or 2 minute breaks every 20 – 30 minutes, and 5 minute breaks every hour. Every few hours, try to get up and move around.



A well-designed computer workstation.

VII. HOW AND TO WHOM TO REPORT ERGONOMICS ISSUES

- A. Always report any symptoms or concerns to one's immediate supervisor.
- B. One may also contact the Safety Officer at ext. 2835.

VIII. THE IMPORTANCE OF REPORTING ERGONOMICS ISSUES

- A. Injuries can be prevented or reduced in severity by employing the engineering and administrative controls previously discussed. These controls reduce the risk of injury for employees and the cost of treatment.
- B. Reporting injuries helps management identify patterns of tasks or environments where similar activities occur. This will help protect fellow workers from further injuries.

PLEASE COMPLETE STUDY QUESTIONS

ERGONOMICS Study Questions

Select the best answer to each question. **DO NOT** write in the manual.

1. The term "ergonomics" generally means:
 - a. The study of computer software
 - b. All the causes of workplace injuries
 - c. How much work that can get done in one shift
 - d. The study of people and their physical relationship to their work
2. The most common risk factor identified as causing injuries is/are:
 - a. Repetitive motions
 - b. Good body mechanics
 - c. Proper lifting techniques
 - d. Locked brakes on wheeled equipment
3. Some of the signs and symptoms that may indicate ergonomic injuries are:
 - a. Chest pain
 - b. Nausea and vomiting
 - c. Tired feet from walking all day
 - d. Pain or numbness of the hands, wrists, arms and neck
4. Suspected ergonomics issues should be reported to:
 - a. Supervisor and Safety Officer
 - b. Human Resources and Supervisor
 - c. Employee Health and County Sheriff's
 - b. Supervisor and employee's private physician

5. Strategies to reduce and/or prevent risk factors that may lead to injuries include:
 - a. Reorganize work area
 - b. Reduce or avoid repetitive motions
 - c. Use proper lifting techniques and body mechanics
 - d. All of the above
6. Strategies to reduce and/or prevent risk factors that may lead to injuries when using the computer include:
 - a. Increase glare on monitor
 - b. Increase repetitive motions
 - c. Place monitor screen above eye level
 - d. Keep wrists straight and hands relaxed

Answers to Study Questions

1. d 2. a 3. d 4. a 5. d 6. d

If you answered all of the questions correctly, go on to the next section. If you missed one or more, read the content again and repeat the study guide questions.

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Ergonomics Program. In: *Hospital and Medical Administration Policy and Procedure Manual*. Torrance, CA: Harbor-UCLA Medical Center; 2006. Policy No. 462.

UCLA Ergonomics. University of California, Los Angeles. Part 19: Worker Capability/Physical or Repetitive Motion. http://ergonomics.ucla.edu/Tips_users.html. Accessed June 22, 2010.

HIPAA AND CONFIDENTIALITY OF DATA AND INFORMATION

Objectives:

Upon completion of this section, the employee will be able to:

1. Identify patient information that is considered confidential
2. Identify how the privacy standards protect individuals from the misuse of their health information
3. Differentiate identifiers for patients that must be kept confidential
4. State one component of the patient's rights for privacy of health information
5. Identify how the security standards safeguard individual is protected health information from misuse and/or unauthorized disclosure
6. Determine specific responsibilities for ensuring confidentiality of protected health information

Instructions to the Employee:

Please read the following section, then answer the study questions at the end of this section.

HIPAA AND CONFIDENTIALITY OF DATA AND INFORMATION

I. INTRODUCTION

Harbor-UCLA Medical Center handles confidential data and information daily to meet the mission of the Medical Center. Information is also used for patient care, medical education and research. A patient's diagnosis and laboratory results are examples of confidential information. Confidential information can be verbal, written or electronic. In this study guide, data is defined as uninterpreted observations or facts. Information is defined as interpreted set(s) of data that can be used for decision-making.

II. HIPAA AND CONFIDENTIALITY OF DATA AND INFORMATION

- A. Harbor-UCLA Medical Center policies and procedures require maintaining the security and confidentiality of data and information. Departmental policies and procedures include data security. (See Hospital Policy No. 627.) Access to medical information is based on an employee's job title, function and the level of confidentiality of the information. Employees are required to sign an "Employee Acknowledgement of Data Security Responsibilities" form annually. Contract staff are held to the same confidentiality policies as County employees.
- B. The Joint Commission and the Health Insurance Portability and Accountability Act (HIPAA) mandate confidentiality of medical information. HIPAA is a federal law protecting the privacy of individual's health information and regulating access to it. Confidentiality applies to current and historical data. All confidential reports or logs containing confidential information are to be destroyed appropriately.
 - 1. Keeping health information private is the most far-reaching part of the Health Insurance Portability and Accountability Act (HIPAA). HIPAA involves standards relating to Privacy, Security and Electronic Transactions. The rules and standards that govern "protected" information and how it is shared are reviewed in this Self-Study Guide.
 - 2. Everyone who works in the healthcare industry needs to be familiar and comply with HIPAA. The question to ask is "*How can I protect the privacy of patient health information?*" HIPAA is a very detailed law, and the penalties for violating it are severe. It is important that all health care team members understand their responsibilities under HIPAA. By protecting the confidentiality of patients' personal health information, healthcare team members protect their rights and avoid penalties.
- C. HIPAA and California State law overlap in many health care team members areas. Always follow the more stringent rule.

III. PRIVACY STANDARDS

The HIPAA privacy regulations require organizations to maintain patient confidentiality. Increased staff training and security of records is key to compliance. The Privacy Standards require that the patient's be formally notified of the use and disclosure of his/her medical information and to have full access to his/her records.

- A. The Privacy Standards protect individuals from the misuse of their health information from:¹
 - 1. People *not* involved in a patient's treatment (eg, Office of Public Safety/Sherriff's Department)
 - 2. Insurers using it to *deny* life or disability coverage
 - 3. Employers using it for hiring or firing decisions
 - 4. Reporters using it for any number of reasons
 - 5. Family members or other patient contacts (eg, neighbors)

B. The Privacy Standards apply to health information that is *written, spoken, electronic, or communicated and maintained in any other form*. The core concept in the Privacy Standards is that Protected Health Information (PHI) should be disclosed *only* to those who need it to provide and/or pay for care. Direct care providers (physicians, nurses, etc.) need access to information, and patients are entitled to see anything in their own records. Others who are *not* direct care providers should receive the minimum information necessary. Anyone *not* involved in the patient's healthcare should receive PHI only with the patient's consent.

IV. PROTECTED HEALTH INFORMATION (PHI)

A. The term "protected health information" as defined in HIPAA means any health information created or received by a health care provider, health plan, employer, life insurer, school or university. The information is protected because it contains confidential information. This information can be found in:

1. Medical records
2. Insurance claims information
3. Payment information
4. Almost all information related to a person's health care

B. The privacy rules place limits on the use and disclosure of a person's protected health information or (PHI). Protected health information is defined as any health information that could reveal the identity of a patient such as:

1. The patient's name, address or phone number
2. The patient's health insurance number
3. The patient's social security number
4. Any other information that identifies a patient

It is critical for organizations to determine strategies to protect a patient's health information. One method is identifying the minimum necessary information that individuals need to access in order to perform their job duties. This is accomplished through security codes and limits access.

V. CONFIDENTIALITY

A. Privacy of PHI is important to patients and organizations. All employees regardless of role, specific duties or job descriptions have a responsibility to protect confidential patient information.

B. If patients do not trust their health care providers to ensure confidentiality of PHI - the consequences are severe. The quality of care could be compromised if patients do not disclose information.

C. Employees are responsible for keeping PHI confidential, being sensitive, respecting the patient's right to privacy, and knowing and applying the organization's policies and procedures.

VI. PATIENTS' RIGHTS

A. The HIPAA privacy regulation *empowers* patients by guaranteeing them access to their medical records, giving them more *control* over how their PHI is used and disclosed, and by providing recourse if medical privacy is compromised. The rule will protect medical records and other personal health information maintained by health care providers, hospitals, health plans and health insurers.

B. The Health Insurance Portability and Accountability Act of 1996 and the Federal Privacy Regulations (April, 2001) established the patient's right to privacy of their health information. These rights include access to information, amending the information, accounting for disclosures, requesting restrictions, filing a complaint and receiving notice².

1. *Right to Access*: Patients have the right to access or inspect their health record and obtain a copy from their health care provider. Patients may access or copy their health records as long as the information is retained. There are few exceptions to access related to psychotherapy notes and protections under state law.
2. *Right to Amend*: Patients have the right to request an amendment to their medical record. The request must be put in writing and submitted to Medical Records. The organization will then review and determine agreement or disagreement. The request for amendment becomes part of the permanent medical record.
3. *Right to Account for Disclosures*: Patients have the right to request a list of when and where their confidential information was released (within the last six months), the date of the disclosure, the name of the person or entity who received the information and address, and a brief description of the reason for the disclosure. The exception is for treatment, payment or healthcare operations.
4. *Right to Request Restrictions*: Patients have the right to request their provider or hospital to restrict the use and disclosure (release) of their confidential information, however, the provider or hospital is not required to comply with the restrictions if the use and disclosure do not otherwise violate HIPAA Privacy Standards.
5. *Right to File a Complaint*: Patients have the right to file a complaint if they believe their privacy rights were violated.
6. *Right to Receive Notice*: Patients have the right to receive a Notice of Privacy Practices handout, which describes how medical information, is used and disclosed; how to access and obtain a copy of their medical record; a summary of patient rights under HIPAA and how to file a complaint and contact information.

VII. REASONABLE PRECAUTIONS

- A. Hospitals and providers must take reasonable steps to ensure that PHI is kept private. The government knows, however, that it is impossible to guarantee the privacy of PHI in ALL situations. Certain activities are permitted for example: calling out a patient's name in waiting areas as necessary in caring for the patient; a physician or nurse talking about a patient's condition or treatment over the phone or shared treatment area with the patient, family or other provider. Reasonable efforts must be made to protect the patient's privacy, such as using lowered voices or talking in a place apart from other people. Patient care discussions should not occur in elevators.
- B. Organizations create policies, procedures and systems to protect patient privacy. These include selecting a privacy coordinator, providing privacy training for the workforce, and identifying sanctions to deal with privacy violations.

VIII. DISCLOSURE

- A. **Protected health information may only be used and disclosed for purposes of treatment, payment and health care operations.** PHI may *NOT* be used or disclosed for any other purposes, unless the patient reads, dates and signs an authorization form allowing the release of information. Authorization forms may be obtained from Medical Records.
- B. A limited number of exceptions to disclosure authorizations is permitted when there is an overriding public health or governmental risk or activity, or in reporting abuse or neglect or for judicial and law enforcement purposes.

IX. PATIENTS' RIGHTS TO PHI

- A. With a few exceptions, patients have the right to access, inspect and copy their health information. Requests must be granted within 30 days if the information is located on-site, and within 60 days if the information is located off-site. The provider may charge the patient for the actual cost of making copies of the health information.
- B. There are some exceptions to the patient's right to access PHI. Before the health information is released to the patient, any element that falls under one of the exceptions should be identified and removed or covered up in a way that they cannot see it. The exceptions include:
 1. Psychotherapy notes
 2. Information that a health care professional determines could be harmful to the patient
 3. Information compiled for use in a civil or criminal trial or administrative proceeding
 4. Certain health information maintained by a covered entity that falls under the Clinical Laboratory Improvements Amendments of 1988

X. SPECIAL ISSUES

- A. Patient authorization is not required for PHI uses and disclosures for health care operations. Patient authorization is required for using or disclosing PHI to raise funds for any organization other than itself. Parents of minors have access to and control of the protected health information about their children under the Privacy Rule. Exceptions apply when the minor is emancipated or self sufficient, in which case the minor controls access to his/her own PHI.
- B. The same set of HIPAA authorization requirements also apply to research uses and disclosures of PHI. Authorization for research may be combined with an informed consent to participate in the research study or any other legal permission related to research. It is also important to understand that authorization to access confidential data or information is not an authorization to release the data.

Hospital policies, which address the release of confidential information, should be followed. Requests for information from the medical record should be referred to Medical Records Release of Information Section.
- C. Security concerns addressed by Harbor-UCLA Medical Center include identification of:
 1. Each individual having access to information
 2. Which information an individual can access
 3. The obligation of the individual accessing the information to maintain confidentiality, the release of information
 4. The mechanism designed to secure information against unauthorized intrusion, corruption and damage
 5. The processes to handle confidentiality violations
 6. The proper disposal of documents containing confidential data when no longer needed
- D. Data and information can be electronic (eg, the Hospital Information System) or manual (eg, the medical record). Electronic PHI has additional HIPAA requirements under the HIPAA Security Rule.

XI. SECURITY RULE

- A. The HIPAA Security Rule covers electronic PHI at rest (which means in storage), as well as during transmission (which means sending electronically). Any electronic PHI that is received, created, transmitted or maintained by DHS facilities is included under the Rule.
 1. DHS facilities must provide safeguards for the following:
 - a. Computer hardware and software
 - b. Locations that house computer hardware and software
 - c. Storage and disposal of data
 - d. Back-up of data
 - e. Access to data
 - f. Maintenance of facilities
 - g. Visitor access to facilities
- B. Patients do not have the responsibility to ensure that information they send electronically is secure. However, once a patient's information containing PHI is received by DHS facilities, it must be protected in accordance with the Security Rule.
 1. The Security Rule covers all electronic media. Electronic media includes:
 - a. Computer networks, desktop computers, laptop computers, personal digital assistants, handheld computers
 - b. Computer software applications
 - c. Magnetic tapes, disks, compact disks, USB storage devices and other means of storing electronic data
 - d. Telephone voice response, "fax back" and other systems that are used as input and output devices for computers
- C. Paper-to-paper, person-to-person telephone calls, video teleconferencing or messages left on voice mail are not covered by the Security Rule; however, these and other methods of transmission of PHI not listed as electronic media are covered under HIPAA Privacy.
 1. A HIPAA Security Officer is required to oversee security implementation and enforcement of the Security Rule. The Security Officer guides the organization in determining the best ways to implement the Security Rule. The County of Los Angeles and the Department of Health Services have appointed HIPAA Security Officers to oversee security on a County and DHS level respectively. Questions regarding HIPAA Security can be referred to Harbor's Information Systems at ext. 5448.
- D. The Centers for Medicare and Medicaid Services (CMS) is responsible for ensuring compliance with the Security Rule. Suspected violations are reported to the Office of Inspector General. The Office of Inspector General will investigate and may recommend penalties up to \$250,000 and/or 10 years in jail for unlawful use of PHI.
 1. The Security Rule is comprised of the following three categories of standards:
 - a. Administrative Safeguards
 - b. Physical Safeguards
 - c. Technical Safeguards
 2. Each Standard has implementation specifications. There are two (2) types of implementation specifications:
 - a. **Required** - Must be followed as they are written in the Security Rule

- b. **Addressable** - Must be implemented if reasonable and appropriate for the organization. If not implemented, an explanation for why it was not reasonable or appropriate must be provided. (*Note: "Addressable" does NOT mean optional. These must be addressed either through implementation or explanation.*)

XII. ADMINISTRATIVE SAFEGUARDS

Administrative Safeguards require written documentation of the security measures. Policies and procedures must ensure prevention, detection, containment and correction of security violations. Policies and procedures must also ensure that all workforce members have appropriate access to electronic PHI in order to perform their job.

- A. These documented measures, policies and procedures must be kept on file for at least 6 years and updated through periodic review. A review might be triggered by an established review cycle, a change in technology, or a new security threat or incident.
- 1. The Security Rule requires that each organization implements Administrative Safeguard policies and procedures regarding:
 - a. **Risk analysis** - an accurate review of the risks involved in meeting the confidentiality, integrity and availability of PHI requirements
 - b. **Risk management** - implementation of security measures that will reduce the risks of attacks or losses that were identified in the risk analysis
 - c. **Sanction/disciplinary actions** - imposed on individuals for security violations
 - d. **Information systems activity review procedures** - regular review of information system activity records, including audit logs and security incident tracking reports
 - e. **Security incident reporting and response** addressing:
 - Actions that are considered security incidents
 - The process to document such incidents
 - The information that should be included in the documentation
 - Appropriate responses for different types of incidents
 - f. **Contingency plan** - response to computer system emergencies:
 - Data back-up - create and maintain retrievable exact copies of electronic PHI
 - Disaster recovery plan - procedures to restore any loss of data
 - Emergency mode operations plan - procedures that make it possible to continue critical business activities that protect the security of electronic PHI during an emergency
 - g. **Business associate contracts and other arrangements (ie, MOU)** - Contracts and other arrangements between DHS and outside entity that create, receive, maintain or transmit electronic PHI on behalf of DHS.

XIII. PHYSICAL SAFEGUARDS

- A. Physical safeguards protect DHS' electronic information system hardware and related buildings and equipment. Security measures include protections from natural or environmental hazards and unauthorized access.
- 1. An organization must implement policies and procedures to:
 - a. Limit physical access to DHS' electronic information systems and the facility or facilities where they are kept
 - b. Restrict access to computers or computer systems containing electronic PHI to authorized users (eg, passwords)
 - c. Assign security responsibilities to individuals who will supervise the use of approved security measures
 - d. Limit access to data viewed on workstations, (eg, logging off the computer before leaving a workstation and automatic time-outs)
 - e. Disposal or re-use of electronic media containing electronic PHI

XIV. TECHNICAL SAFEGUARDS

A. Technical safeguards include the use of computer technology solutions to protect the integrity, confidentiality and availability of electronic PHI.

1. The Technical Safeguard standards require written documentation of security measures, policies and procedures implemented with respect to:
 - a. **Access control** - ensures appropriate technical solutions are in place to protect the integrity, confidentiality and availability of electronic PHI. For example, electronic systems, which handle confidential data and information, require two tiers for security, (eg, user identifier and password)
 - b. **Audit control** - requires implementation of hardware, software, and/or procedures that record and examine activity in information systems containing or using electronic PHI
 - c. **Integrity** - prevents electronic PHI from being improperly altered or destroyed
 - d. **Person or entity authentication** - procedures to verify that a person or entity seeking access to electronic PHI is the one he, she or it is claiming to be
 - e. **Transmission security** - protects against unauthorized access to electronic PHI while it is being transmitted

XV. ROLES AND RESPONSIBILITIES

A. Successful compliance with the HIPAA Privacy and Security Standards involves creating systems that limit access to PHI to the minimum amount necessary for staff to perform their job functions and to protect the availability and integrity of such information. Each employee is responsible for protecting each patient's privacy by following the guidelines below.

1. Specifically, do not leave patient information in places where other people can see it if they have no need to know the information to perform their job. If PHI is left out, do not read through it - close the chart, cover it, or put it away in its appropriate place.
2. Log off on the HIS terminal when leaving the computer station or after obtaining the necessary data.
3. Do not share computer passwords or leave them out where they can be seen. Change passwords at least every 90 days.
4. Ensure that computers and laptops used to access electronic PHI are physically and technically secured.
5. Protect PCs from viruses. Do not accept emails from unknown sources or load files from electronic media that are not scanned for viruses.
6. Be aware of your departmental contingency plans if automated systems used for patient care go down.
7. Ensure that all areas used to store PHI are properly secured. Ensure that only authorized personnel have access.
8. Keep paper records related to patients out of publicly accessible areas. Keep lab reports, correspondence and other items regarding patients out of common areas.
9. Access confidential information only to do one's job. Staff should view only medical records of patients for whom they are treating or caring.
10. Dispose of PHI properly - shred documents, do not throw them in the trash. Used approved methods to destroy electronic PHI before reuse or disposal.
11. When faxing PHI to someone else, indicate that the FAX is confidential. Call and advise the receiving party when it is ready to send. Ask the individual to stand by to intercept the document and confirm receipt.
12. Be aware that violations of privacy or security policies and procedures are subject to disciplinary action.

13. Understand and comply with the Acceptable Use Policy for County Information Technology Resources.
14. Understand the law and comply with the medical center's policies and procedures. If an issue is found, report the problem to the immediate supervisor or Privacy Liaison.

**TREAT THE PATIENT'S INFORMATION THE WAY YOU WOULD WANT
YOUR OWN PERSONAL INFORMATION TREATED.**

XVI. CONCLUSION

Protected health information (PHI) may only be used or disclosed for treatment, payment, and health care operations unless authorized by the patient or allowed by law.¹ Protecting PHI is *everyone's* responsibility; therefore, become familiar with and follow all applicable policies and procedures. Contact local HIPAA Security liaison or coordinator for any questions regarding the protection of electronic protected health information.

PLEASE COMPLETE THE STUDY QUESTIONS

**HIPAA AND CONFIDENTIALITY OF DATA AND INFORMATION
Study Questions**

Select the best answer to each question. **DO NOT** write in the manual.

1. The Privacy Rule applies to protected health information (PHI) in all forms including electronic, written, oral, and any other form.
 - a. True
 - b. False
2. If an employee sees a FAX with patient information lying on a counter top, what should the employee do?
 - a. Read it to see if there is anything interesting in it
 - b. Throw it in a wastebasket since apparently it wasn't important
 - c. Read the name of the person it was sent to, without reading the rest of it, and deliver it to that person
 - d. None of the above
3. Discussing a patient's condition over the phone, or in an open area of the care setting, with the patient, family, or another provider is allowed as long as reasonable efforts are made to protect the patient's privacy – such as using lowered voices or talking in an area apart from other people.
 - a. True
 - b. False
4. When conducting an investigation of an alleged crime, the Sheriff Department may have access to the patient's medical record.
 - a. True
 - b. False

5. The Security Rule requires covered entities to do which of the following?
 - a. Stop all electronic bank transactions
 - b. Keep all data confidential even if it is not electronic
 - c. Convert all protected health information on paper to electronic PHI
 - d. Protect the integrity, confidentiality and availability of the electronic protected health information they collect, maintain, use or transmit
6. Part of the Security Rule requires that access to computers or computer systems containing electronic protected health information must be:
 - a. Wherever space allows
 - b. Freely available to everyone
 - c. Restricted to authorized users
 - d. Available only in located rooms
7. Physical safeguard requirements of the Security Standards include protection of a covered entity's:
 - a. Patients
 - b. Electronic information systems
 - c. Buildings and equipment related to electronic information systems
 - d. All of the above

Answers to Study Questions

1. a 2. c 3. a 4. b 5. d 6. c 7. d

If you answered all of the questions correctly, go on to the next section. If you missed one or more, read the content again and repeat the study guide questions.

References

1. Office of the Assistant Secretary for Planning and Evaluation. Administrative Simplification in the Health Care Industry. <http://aspe.hhs.gov/admnsimp/>. Accessed June 22, 2010.
2. US Department of Health and Human Services. National Institutes of Health. HIPAA Privacy Rule and its impact on research. <http://privacyruleandresearch.nih.gov/>. Accessed June 22, 2010.

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Safeguards for protected health information. In: *Hospital and Medical Administration Policy and Procedure Manual*. Torrance, CA: Harbor-UCLA Medical Center; 2005. Policy No. 706.

USE OF RESTRAINTS

Objectives:

Upon completion of this section, the employee will be able to:

1. Discuss the organizational philosophy related to the use of restraints
2. Identify alternative interventions prior to the use of restraints
3. Differentiate between the behavioral and non-behavioral justifications for the use of restraints/seclusion
4. List types of physical restraints
5. Provide examples of patient behavior that justifies initiating behavioral or non-behavioral restraints
6. Identify the process for calling a Code Green to activate the Crisis Response Team (CRT)
7. Describe the potentially harmful effects of restraints
8. Discuss the importance of patient and family education related to use of restraints
9. Describe how often an opportunity for elimination, food and fluid intake, and range of motion must be provided for patients in restraints

Instructions to the Employee:

Please read the following section, then answer the study questions at the end of this section.

USE OF RESTRAINTS AND SECLUSION

I. ORGANIZATIONAL PHILOSOPHY

Harbor-UCLA Medical Center is committed to preserving the dignity, safety, comfort, and personal freedom of each individual seeking medical or psychiatric care. Our goal is to prevent, reduce, and attempt to eliminate the use of restraints and seclusion throughout the facility by raising the level of awareness and competence among staff through education focused on the use of restraint or seclusion. *Restriction of a patient's physical freedom of movement by the application of restraints will only be carried out in those situations where appropriate, alternative, non-physical interventions have been considered, attempted and deemed ineffective.* The organization is committed to utilizing non-violent physical crisis interventions to control and prevent crisis situations that have the potential to lead to the use of restraints and seclusion.

II. DEFINITION

A. This section addresses the use of restraints **in all clinical areas**.

As defined by the Centers for Medicare/Medicaid Services (CMS)¹:

1. **Restraint**

- a. Any manual method or physical or mechanical device, material, or equipment, that immobilizes or reduces the ability of a patient to move his or her arms, legs, body, or head freely²
- b. A drug or medication when it is used as a restriction to manage the patient's behavior or restricts the patient's freedom of movement and is not a standard treatment or dosage for the patient's condition.²

2. **Seclusion**- the involuntary confinement of a patient alone in a room or area from which the patient is physically prevented from leaving. Seclusion is used only for management of violent or self-destructive behavior.²

** Restraint does not include devices for medical immobilization (eg, use of arm board during IV therapy, surgical positioning), orthopedically prescribed devices, surgical dressings or bandages, protective helmets or methods to protect the patient from falling out of bed (side rail use). The physical holding of a patient for the purpose of conducting routine physical examinations or tests is also not considered a form of restraint.*

B. All Harbor-UCLA Medical Center employees including both direct and indirect care providers need to be aware of the hospital's philosophy regarding the use of restraints and seclusion as well as general factors to consider when restraints are utilized. This section of the reorientation study guide will provide the individual with the philosophy regarding the use of restraints and seclusion. Factors to consider, justification for the use of restraints and safety considerations for both patients and staff, will be emphasized.

C. There are two distinct types of classifications and guidelines related to the use of restraints.

- 1. **Behavioral justifications:** Used in emergency situations when the patients exhibit violent, aggressive and/or destructive behaviors, which represents imminent risk of an individual's self harm or harm to others.
- 2. **Non-behavioral justifications (medical/surgical):** Used as an adjunct to medical/surgical care. Includes patients that are restrained for reasons other than violent, aggressive or destructive behaviors (i.e., attempting to pull out lines, tubes, or other necessary medical devices*).

III. BEHAVIORAL/NON-BEHAVIORAL RESTRAINTS

A. Indications

Restraints/seclusion are initiated only in those situations where alternative interventions have been attempted and deemed ineffective:

1. Behavioral indications

- a. Patient is physically threatening to self/staff/other patients by attempts to hit, kick, bite, etc.
- b. Patient is verbally threatening staff or other patients with bodily harm and indicates intent to carry out threat.
- c. Patient is physically destroying property, throwing objects, breaking windows, etc.
- d. Patient is forcefully grabbing people.
- e. Patient is expressing a suicidal plan such as jumping out of a window with intent to carry out the plan.

Involuntary Holds

Being on a Psychiatric Involuntary Hold (5150) is not a behavioral justification for use of restraints. Restraints may be used on voluntary or involuntary patients. The patient's behavior is the determining factor.

2. Non-behavioral indications

- a. Patient attempts to remove lines, tubes, or disrupt other essential medical devices
- b. Patient requires bedrest to limit mobility and is unable to follow plan of care

B. Types of physical restraints

1. Soft wrist/ankle restraints including cloth vest
2. Hard wrist/ankle restraints
3. Walking wrist restraints (a less restrictive alternative used only in the behavioral health care and psychiatric inpatient units)

C. Inspection of restraints

Restraints must be inspected prior to, during application, and after application for the following:

1. Soft restraints

- a. Broken stitching
- b. Frayed or cut straps
- c. Broken, cracked deteriorated buckles, ring closures or other type of connectors
- d. Any other signs of deterioration

2. Hard polyurethane restraints

- a. Ensure that the cuff and belt are clean. Dirty hard restraints must be sent to Central Supply for cleaning.
- b. Polyurethane is not deteriorated, broken, or cracked
- c. Verify that locking device locks and can easily be opened
- d. A restraint key must be available on the unit

- e. Assess locking device for loosening

IV. ALTERNATIVE MEASURES

Restraints are to be used only when alternative measures are ineffective in protecting the patient or others from injury. Attempts of alternative measures to control the patient's physical activity in order to protect the patient or others from injury are critical and must be documented prior to placing the patient in restraints. Restraints cannot be used as a punishment, aversive treatment, or for the convenience of staff.³ The patient and family (with the consent of the patient in the psychiatric areas) will be notified of the reason for placing the patient in restraints. **Restraints should be applied only when a need is supported by patient behavior that will result in harm to self or others and alternative methods have proven to be ineffective.**

The following is a list of alternative methods and specific examples that can be considered:

A. Location change

1. Move the patient closer to the central nursing station.³
 - a. Provide the patient closer access to nursing staff. It is also a good idea to move a patient away from the window if the patient is at risk of suicide.
2. Separate the patient from other patients.³
 - a. Allow the patient to experience a less stimulating and quieter atmosphere or different environment (eg, move the patient from a 4 bed to a 2 bed or a single bed room). In the psychiatric areas, the patient may be placed in open seclusion.

B. Family involvement

The patient in the psychiatric area will be informed of the right to have family informed of any episodes of restraint or seclusion.

1. Educate patient and family. Inform the patient and family of the organization's philosophy on the use of restraints and seclusion. Include the patient and family in identifying behaviors requiring restraint/seclusion, identifying alternatives and the treatment plan. Inform the family of the reasons for the use of restraints, placing an emphasis on safety. (In the psychiatric area, this requires the patient's consent.)
2. Encourage family members to bring things that the patient likes or needs.³ Ask the family to bring pictures of loved ones/significant other, pets or religious items that can help to individualize the patient's environment. Family involvement is encouraged in the psychiatric areas; however, personal items from home that are sharp, breakable or determined to be unsafe by the psychiatric staff must be kept at the nurses' station and are not allowed at the bedside.
3. Family support and involvement in the patient's care must be encouraged.⁴ Allow family members to give baths, assist in patient care needs, interpret for the patient or just stay at the bedside to hold the patient's hand.

C. Therapeutic interactions

1. 1:1 de-escalation.⁴ Remove patient from a situation or discussion when the patient has been observed feeling powerlessness, and help him/her to refocus on "here and now activities". Continue to reinforce the current reality and day-to-day activities. Provide direction slowly and maintain a calm manner.
2. Assist the patient in identifying sources of fear, anxiety, frustration.³ Use open-ended questions to help the patient identify the source of his/her fears. Orient and reorient patient to the room environment, plan of care and staff who are providing care.

3. Verbal de-escalation. Encourage patient to express emotions or feelings.³ Ask the patient how he/she feels and listen to what the patient is saying. Assist the patient in verbalizing feelings by using emphatic responses. Reflect and clarify statements the patient has made. Use direct communication and talk with, not at the person.
4. Redirection.⁶ Help the patient identify appropriate expressions of their emotions and facilitate his expression by allowing the patient to verbalize his/her feelings to the appropriate person, provide a journal, and time for quiet reflection, etc.
5. Offer voluntary time out.⁴ Allow time for the patient to be alone or pull the curtain around the bed. Provide decreased stimulation. (In the psychiatric units, time out may take place in the patient's room or a seclusion room with the door remaining unlocked).
6. Offer medication(s) to decrease irritability, agitation, or pain.⁵ Assist the patient to feel comfortable by offering pain medication as needed. To decrease irritability and agitation caused by hypoxia and/or electrolyte imbalances, assess and provide interventions to maintain the patient's electrolytes and oxygen saturation within normal limits. Offer psychotropic medications as indicated. Have the nurse with the best relationship with the patient offer the medication.
7. Set clear, firm, enforceable limits.⁵ Remember, when giving a patient limits, instructions should be clear and simple. Tell the patient what the healthcare team's objectives and expectations are, eg, calling the nurse when he/she needs to go to the bathroom, not to be out of bed without assistance. Inform patient of consequences associated with behavior. Explain exactly what behaviors are inappropriate and why they are inappropriate.
8. Verbally contract with the patient for safe/appropriate behavior.⁵ The goal of a nurse-patient verbal contract is to increase the patient's involvement in his/her plan of care and give the patient a sense of control for his/her treatment plan. For example, the nurse orients the patient on initial contact regarding safety practices. Furthermore, the nurse should receive verbal acknowledgment and agreement from the patient regarding the plan of care.

D. Environmental

1. Maintain patient territorial space.⁴ Inform the patient on admission which areas in the room are for individual use and which areas are shared, such as the bathroom and sink. Respect personal space.
2. Respond promptly to the patient's request for help. Answer the patient call light as soon as possible, provide information or a reason for delay of service/treatment.
3. Decrease environmental stimuli.⁵ Encourage all patients in a room to help maintain a reasonable noise level with their visitors, telephone conversations, television or radios. Also keep the lights dim during sleeping hours.
4. Increase the frequency of interactions.⁴ Visit the patient more frequently when the patient is confused or having episodes of disorientation. Provide a companion to stay with the patient to observe the patient, keep the patient safe and oriented.
5. Provide clocks and calendars. Orient the patient to time and place and point out assistive devices like clocks and calendars.
6. Involve the patient in diversion activities and meaningful activity/exercise.³ Have the patient perform simple repetitive tasks (eg, word games and other such activities). Designate a safe area for the patient to ambulate (if condition allows).
7. Music therapy.³ Offer to call the volunteer office to borrow a tape recorder and audio cassettes

and/or ask the family to bring the patient's favorite musical tapes. Research has shown that listening to music over a period of time can decrease the patient's level of anxiety.

E. Support systems

1. In house counseling: Offer the patient the opportunity for counseling by referring him/her to the chaplain or social services to increase social support.
2. Community support: Encourage the patient and family to contact friends, church members and other people who may offer the patient and family emotional support in their own environment.

V. ACTIVATION OF CRISIS RESPONSE TEAM (CRT)

Harbor-UCLA Medical Center uses a Crisis Response Team (CRT) to respond in any emergency situations in which their assistance is requested for behavioral management of patients. The team works with unit staff to diffuse crisis situations, maintain safety, and to initiate behavioral restraint/seclusion if necessary. The CRT provides 24-hour 7-day week coverage throughout the hospital to assist in these emergencies. Code Green is the code identified to activate the CRT.

- A. When alternatives have failed to de-escalate violent, aggressive behavior in patients that represents an immediate and serious danger to safety, a Code Green will be called to activate the Crisis Response Team (CRT), which consists of one trained behavioral health registered nurse (Team Leader), and 4 other behavioral health nursing staff members.
 1. To activate Code Green:
 - a. Dial ext. 111
 - b. Caller to:
 - 1) Provide his/her name
 - 2) Identify the emergency as a "Code Green"
 - 3) Identify the location (unit, room, bed number) and telephone extension
 - 4) Provide a brief description of the situation
 - c. The operator will:
 - 1) Page the Crisis Response Team nursing team members at the dedicated beeper number
 - 2) Overhead page "Code Green" and specify the patient location including the room/bed number
 2. When the CRT arrives, additional attempts will be made to de-escalate the emergency before behavioral restraints/seclusion are initiated by the Crisis Response Team.- B. Restraints shall be implemented in the least restrictive manner possible, in accordance with safe and appropriate restraining techniques, and used only when less restrictive measures have been found to be ineffective. The patient's plan of care will be modified as appropriate.
- C. The patient shall be evaluated and treated for any injuries.
- D. Licensed Independent Practitioners and qualified nursing staff are authorized to remove restraints prior to the expiration of the order, if appropriate.
- E. If a patient commits a crime, the staff must contact the Sheriff Department at ext. 3311.

VI. ROLES AND RESPONSIBILITIES

A. The Licensed Independent Practitioner's responsibilities include:*

1. Completing a face-to-face assessment of the patient's current clinical condition, including the following:
 - a. An evaluation of the patient's immediate situation
 - b. The patient's reaction to the intervention

- c. The patient's medical and behavioral condition
- d. The need to continue or terminate the restraint or seclusion
- e. Alternative intervention methods attempted or considered prior to restraints/seclusion
- f. Indications, justifications for restraints/seclusion

2. Providing a written order if restraint and/or seclusion is clinically justified.
3. Conducting an in-person re-evaluation prior to expiration of original order (PRN orders are not accepted).
4. Participating in daily reviews of restraints and/or seclusion use related to his/her patients.
5. Consulting with support services (eg, Social Work, Occupational Therapy/Recreational Therapy, and Dietary Services, as needed).

* The above is applicable for the physician primarily responsible for the patient's ongoing care orders. For behavioral restraint, an attending physician is consulted as soon as possible if he/she did not order the restraints/seclusion.

B. The Registered Nurse's responsibilities include:

1. Crisis Response Team RN
 - a. Serves as a team leader for the Crisis Response Team
 - b. May initiate restraints/seclusion in an emergency without a physician order
2. All RN's
 - a. Ensuring that the behavior necessitation use of restraints and alternatives considered/tried are documented in the medical record
 - b. Ensuring the patient is advised on the purpose of restraints and/or seclusion and the circumstances under which the restraints and/or seclusion shall be discontinued
 - c. Completing and documenting an initial assessment and ongoing reassessment
 - d. Assuring that patients in restraints are appropriately monitored and receive necessary interventions
 - e. Ensuring the patient is assessed for any potential injuries that may have occurred during the restraint process

C. Role of other patient care personnel

1. Under appropriate circumstances other properly trained members of the healthcare treatment team may monitor patients in restraints and/or seclusion and provide necessary intervention.

VII. FACTORS TO CONSIDER WHEN PATIENTS ARE IN RESTRAINTS

A. Underlying causes

1. Violent, aggressive, assaultive, and destructive behavior
 - a. Psychosis: Patients who are experiencing delusions and/or hallucinations are at increased risk for aggressive/assaultive behavior. These symptoms often produce increased anxiety.
 - b. Anxiety: Anxiety is frequently the underlying factor related to aggressive/assaultive behavior. The behavior is an attempt to reduce anxiety levels.
 - c. Intoxication and withdrawal from substances: Many substances can cause an increase in agitation and paranoia when a person is intoxicated or withdrawing from a substance.
 - d. Bipolar disorder, manic phase: Hallmark symptoms of this disorder include irritability that may escalate into hostility and combativeness when attempts are made to redirect behavior.
 - e. Dementia/Delirium: Dementia and delirium may result in violent types of behaviors that pose

immediate risk to the patient or others.

2. Behaviors which interrupt medical treatment that have the potential for patient harm
 - a. Underlying medical conditions may precipitate altered mental status. Conditions that may cause altered mental status include fever, electrolyte imbalance, brain tumors, and head injury.

B. Patient's fear and anxiety

1. Explain the procedure to the patient.
2. Give the patient specific behavioral reasons for use of restraints (eg, "You are not able to control your behavior. You hit the staff, broke windows...").
3. Convey that the use of restraints is not a punishment, but rather for the patient's safety and the safety of others.
4. Specify the expected behavior that will lead to the discontinuation of restraints.

C. Comfort and safety

1. Restraints should be applied securely to ensure patient safety.
2. Restraints should be placed to allow for the maximum amount of movement possible and rotated, as clinically indicated.
3. Patients should always be positioned supine and in proper body alignment.
4. Consider reducing number of restraints as part of evaluation of patient readiness to discontinue restraints.

D. The patient's decreased autonomy

1. Patients who require the use of restraints become dependent upon the nursing staff to meet all of their basic needs, which include: safety, fluid intake, nourishment, elimination needs, skin integrity, and hygiene.
2. **All staff** must be aware of patients who are in restraints on the unit at any given time.

E. Risks and potentially harmful effects of use of restraint

1. Increased incidence of injury.
 - a. **Do not restrain a patient in a prone position.** Restraining a patient in a prone position may predispose the patient to suffocation. Restraining a person in the prone position restricts the ability to breathe, decreasing the supply of oxygen. *Restraint related positional asphyxia* occurs when breathing is severely compromised and the resulting lack of oxygen leads to disturbances in the rhythm of the heart. Prone position is a hazardous and potentially lethal restraint position. Some people are more at risk for positional asphyxia than others. Factors that increase the risk include obesity, extreme physical exertion or struggling prior to or during restraint use, pre-existing heart or respiratory problems, and use of alcohol or other drugs. Because of the known risks identified with prone positioning, patients are to be placed and maintained in the supine position when restrained in bed.
 - b. Physical restraints can lead to death by strangulation.³ Patients attempting to get out of restraints can pull or tug the restraints in all directions, potentially causing strangulation.
 - c. Increased incidence from falls out of bed.⁴ Patients who are restrained have an increased

tendency to try to get out of bed or restraints. Healthcare providers often have a false sense of security and may believe that patients who are restrained cannot get out of bed.

2. Increased incidence of nosocomial infection and new pressure ulcers.⁵
 - a. The patient whom is in restraints depends on care being provided by healthcare providers, which may lead to an increased incidence of nosocomial infections.
 - b. The constant skin friction caused by the patient trying to get out of restraints can potentially cause skin breakdown. Skin breaks can lead to the development of pressure sores, which can evolve into an acute infection.
3. Regression, helplessness, decreased autonomy, and low self-esteem.⁴
 - a. Feeling a lack of control and increased dependence on another person for normal activities of daily living can be humiliating and result in a decreased sense of self worth for the patient.
4. Expression of strong feelings of humiliation and vulnerability that may persist for months after being placed in restraints.⁴
 - a. Experiences are hard to forget, especially when one is not able to understand the reason for the restraints or the behavior that led to being restrained.
5. Increased feelings of anxiety.
 - a. The forced immobility and restriction of movement often results in increased anxiety which may lead to panic.

VIII. MONITORING AND DOCUMENTATION

A. Continuous monitoring

1. Behavioral Justification. While in restraints, a patient must receive continuous in-person observation by a nursing staff member. In the psychiatric area when a patient is in seclusion only, he/she must be continually observed by a nursing staff member in person for the first hour. After the first hour, further observation may be performed by continuous audiovisual monitoring. Continuous in-person observation is accomplished by utilizing a sitter.
 - a. Sitter policy and essential sitter duties
 - When a patient is being continually monitored the sitter policy must be followed. A sitter will be provided for patients restrained for behavioral reasons in the Adult Medical/Surgical Wards, Adult/Pediatric Emergency areas, 7 West Ward, and Pediatric Ward. A sitter will also be provided for patients in restraints and for patients in seclusion for the first hour in the locked psychiatric units. The sitter's duties are as follows:
 - 1) Remain within view and immediate contact of the patient at all times. If at any time the sitter is unable to remain within view of the patient, he/she must notify the RN responsible for the patient so an alternate sitter can be made available to remain and monitor the patient.
 - 2) Provide general nursing care to the patient being observed.
 - 3) Provide continuous in-person observation.
 - 4) Provide a safe environment, including removal of potentially dangerous objects from the room and screening any items brought by family and friends.
 - 5) Report ongoing behavioral observations to the RN responsible for the patient.
 - 6) Document appropriately on the observation record.
2. Non-behavioral justification: monitor patient every 15 minutes, or more frequently, if indicated.



B. When the patient is placed in restraints for Behavioral or Non-behavioral justifications, the patient is immediately assessed for appropriate application and then every 15 minutes for the following:
 Note: Patients in Behavioral restraints require continuous in-person observation.

15 Minute Observations for Patients in Physical Restraints

- Any signs of injury associated with restraint or seclusion (eg, such as swelling and/or color change on the restrained limbs)
- Circulation and range of motion in the extremities (not applicable for side rail restraint)
- Nutrition and hydration
- Hygiene and elimination
- Vital signs (respiratory rate for behavioral justification; for non-behavioral justification routine per unit vital signs are sufficient)
- Physical and psychological comfort
- Readiness for reduction or discontinuation of physical restraint and seclusion

C. Documentation

1. Observations are documented on the *Behavioral Restraint Nursing Observation and Care Record* or the *Non-behavioral Restraint Nursing Observation and Care Record* by checking the appropriate boxes and initialing the column. All adverse effects are documented when observed and described in the *Nursing Evaluation and Progress Notes*.
2. Checking the awake/asleep column every 15 minutes indicates that the patient was evaluated for all of the above assessments.
3. When the patient is restrained for behavioral reasons, vital signs (minimally, respiratory rate) are recorded every 15 minutes.
4. The following must be documented a minimum of every 2 hours for all patients in restraints:
 - a. Fluids provided if patient is not NPO (while patient is awake)
 - b. Toileting provided (urinary and bowel measures while patient is awake)
 - c. Range of motion provided while patient is awake (not applicable for side rail restraint)
 - d. Rotation of restraints when clinically indicated
5. If elimination or food/fluid intake are contraindicated because of the medical condition or plan of care, a notation must be made on the appropriate *Nursing Observation and Care Record*.
6. Any adverse effects from the use of restraints such as swelling and/or color change on the restrained limbs are documented at the time of occurrence and a note is entered on the *Nursing Evaluation and Progress Note*. Any related interventions and responses must also be documented in the *Nursing Evaluation and Progress Note*.
7. For restraints used with behavioral justification, document ongoing assessment, interventions and evaluations (AIE). However, this does not eliminate the need for AIE documentation in the nurses' notes.
8. The date and time that restraints are removed must be documented on the appropriate *Nursing Observation and Care Record*.

IX. CONCLUSION

In summary, restraints and/or seclusion are to be utilized only when alternative, less restrictive interventions have been tried and deemed ineffective. Restraints are utilized only when there is a risk of imminent injury to the patient or others (behavioral justification) or as an adjunct to care in order to prevent the disruption of essential treatment (non-behavioral, justification).

PLEASE COMPLETE THE STUDY QUESTIONS

USE OF RESTRAINTS **Study Questions**

Select the best answer to each question. **DO NOT** write in the manual.

1. Important aspects of patient and family education regarding the use of restraints include:
 - a. Criteria for release of restraints
 - b. Behavior necessitating the use of restraints
 - c. The organization's philosophy related to the use of restraints
 - d. All of the above
2. All of the following are appropriate alternatives that may be tried prior to placing a patient in restraints **EXCEPT**:
 - a. Decreasing environmental stimuli
 - b. Offering medication to the patient
 - c. Setting limits on inappropriate behavior
 - d. Encouraging the patient to leave against medical advice
3. The potentially harmful effects of restraints would include which of the following:
 - a. Increased sense of autonomy
 - b. Decreased incidence of limb injury
 - c. Decreased incidence of pressure sores
 - d. Increased feelings of helplessness and humiliation
4. Which of the following statements best reflects Harbor-UCLA Medical Center's philosophy regarding the use of restraints?
 - a. Patients may only be restrained if they are on an involuntary psychiatric hold
 - b. Restraints may be utilized only in emergency situations with the patient's consent
 - c. Alternative measures may be tried prior to the initiation of restraints in order to effectively maximize restraint use
 - d. Restriction of a patient's mobility and movement by the application of restraints will be carried out only in those situations where alternative methods have been considered, attempted, and deemed ineffective
5. How often should elimination and hydration needs be addressed for patients in restraints?
 - a. Every shift
 - b. Only when the patient requests
 - c. A minimum of every 2 hours while awake
 - d. As part of the every 15 minute observation while awake

6. In order to maintain comfort and safety for the patient in restraints, patients should be positioned in proper body alignment in which of the following positions?
 - a. Prone
 - b. Supine
 - c. Left lateral
 - d. Right lateral
7. When the CRT applies behavioral restraints, an order must be obtained within:
 - a. 1 hour
 - b. 2 hours
 - c. 4 hours
 - d. 24 hours

Answers to Study Questions

1. d 2. d 3. d 4. d 5. d 6. b 7. a

If you answered all questions correctly, go on to the next section. If you missed one or more, read the content again and repeat the study guide questions.

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INTERPRETER SERVICES

Objectives:

Upon completion of this session, the employee will be able to:

1. Describe Harbor-UCLA's responsibility to provide interpreter services to patients
2. Describe the actions the employee must take to access interpreter services utilizing the Video Medical Interpreting (VMI) units and other telephone technologies deployed throughout the medical center
3. Describe how to document in the patient's chart when an interpreter is used

Instructions to the Employee:

Please read the following section, then answer the study questions at the end of the section.

INTERPRETER SERVICES

I. INTRODUCTION

A. Harbor-UCLA Medical Center ensures the availability of interpreter services, free of charge for Limited English Proficiency (LEP) patients. An LEP person is one who is unable to speak, read, write or understand the English language at a level that permits him/her to interact effectively with healthcare and social services agencies and providers. LEP patients and patients who are hearing impaired will have interpreter services available to them at the point of service or any point requested or identified during the provision of services. A patient is not required or expected to use family members or friends as interpreters and family members and friends should not be used unless specifically requested by the patient. **Minors (18 years or younger) may not be used as interpreters under any circumstances.**

II. LEGAL REQUIREMENTS

A. Title VI of the Civil Rights Act of 1964 and other federal, State and Joint Commission regulations and standards require that we provide linguistic accessibility to LEP persons to ensure meaningful access to programs and services.

1. Linguistic access is defined as immediate responsiveness to individual linguistic needs so that an LEP or hearing/speech impaired person can effectively communicate with healthcare providers.
2. Interpreter Services must be available at all times and at no cost to the patient.

III. GUIDELINES FOR ACCESSING INTERPRETER SERVICES

A. Harbor-UCLA Medical Center has a Language Center located in Bldg. N-17, ext. 6557 with dedicated full-time interpreters. To maximize the use of the in-house interpreters Harbor-UCLA has deployed Video Medical Interpreting (VMI) equipment and various telephone technologies (ie, Polycom speaker-phones, dual handheld cordless phones, handset splitters), as well as participate in the Healthcare Interpreter Network (HCIN). HCIN participation allows hospitals to share interpreter services whereby health-system based interpreters from numerous California public hospitals and Language Line (telephonic interpreting services) are available 24 hours, 7 days a week via real-time videoconferencing and various telephone technologies with an average connect time of less than one minute.

The following are steps one should take to access interpreter services for a patient:

1. Identify the language of the Limited English Proficient (LEP) patient.
2. If one is bilingual and speaks the language of the patient's preference, communicate with the patient in the preferred language.
3. Utilize bilingual staff in one's work area, if available.
4. If bilingual staff are not available, utilize the Video Monitoring Unit equipment in your area or call the Healthcare Interpreter Network (HCIN) at ext. 5405 which will automatically connect you with an interpreter either at Harbor-UCLA or part of the HCIN network, which allows us access 24 hours/day, seven days/week.

5. If an in-person interpreter is needed, call ext. 6557 for assistance Monday - Friday, 8:00 am - 5:00 pm (outside of these hours, access the Interpreter Directory via the Harbor Intranet). When requesting an interpreter, provide the following information:
 - a. The date and time interpreter is needed.
 - b. The location where the interpreter is needed.
 - c. The approximate length of time the interpreter is needed.
6. American Sign Language (ASL) can be accessed via the VMI units and dial ext. 5405 to request sign language services.
7. Teletypewriter/telecommunications devices for the deaf/hearing impaired are available as listed below:
 - a. A TTY/TDD machine is housed in the Emergency Room for deaf/hearing impaired patients to communicate with medical center regarding hospital related activities. The TTY/TDD phone number is (310) 328-2352.
 - b. Public TTY/TDD machines/pay phones are located on the first floor of the hospital at the following two locations:
 1. PCDC West entrance
 2. Adjacent to the Gift Shop

Remember:

- ✓ If an interpreter is used, one must document in the patient's medical record the name and title of the interpreter.
- ✓ If an interpreter is used during an informed consent discussion, the interpreter or healthcare provider must complete the Interpreter Attestation Form.

PLEASE COMPLETE THE STUDY QUESTIONS

INTERPRETER SERVICES
Study Questions

Select the best answer to each question. **DO NOT** write in the manual.

1. When encountering a Limited English Proficiency (LEP) patient, the employee should:
 - a. Seek the assistance of a bilingual staff member in the department
 - b. Ask the patient's 16-year old daughter to interpret for today's visit
 - c. Ask the patient to bring an interpreter with him/her for future appointments
 - d. B and C
2. When unable to find an interpreter within one's department/area during the day, the first step should be:
 - a. Call the patient's physician
 - b. Request the patient's 16-year old daughter to interpret
 - c. Ask the patient if he/she has a friend who can interpret
 - d. Call the Harbor-UCLA Medical Center's Language Center

3. The term Limited English Proficiency (LEP) applies to a person who is unable to speak, read, write or understand the English language:
 - a. At a high school level
 - b. At a college grade level
 - c. Without the help of a minor family member
 - d. At a level that permits the person to interact effectively with healthcare providers
4. When an interpreter is used during an informed consent discussion, the interpreter or healthcare provider must:
 - a. Complete the *Interpreter Attestation Form*
 - b. Provide the care team with proof of foreign language proficiency
 - c. Have a second translator listen to the translation to attest to its accuracy
 - d. Contact the Healthcare Interpreter (HCIN) one hour before the informed consent discussion

Answers to Study Questions

1. a 2. d 3. d 4. a

If you answered all of the questions correctly, go on to the next section. If you missed one or more, read the content again and repeat the study guide questions.

INTERPRETER SERVICES

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HAND-OFF COMMUNICATION

Objectives:

Upon completion of this section, the nurse will be able to:

1. Identify four requirements of effective patient hand-offs
2. Identify five critical hand-off situations
3. Discuss the nurse's responsibility for hand-off communication
4. Describe the procedure for hand-off to non-licensed personnel

Instructions to the employee:

Please read the following section, then answer the study questions at the end of this section.

I. OVERVIEW OF HAND-OFF COMMUNICATION

Poor communication has been identified as the root cause of nearly 70% of patient safety issues in which patients died or suffered serious physical or psychological injury. At least half of communication breakdowns occur during handoffs.¹

“Hand-off communication” refers to the process of passing patient specific information from one caregiver to another or from one team of caregivers to another for the purpose of ensuring continuity and safety of the patient’s care. In effective hand-off communications, caregivers provide accurate information about a patient’s current condition, ongoing treatment and services, recent or anticipated changes in condition, and actual or potential complications.

A. Consider these situations in which a breakdown in hand-off communication would occur:

1. A patient is given a double dose of morphine because one nurse “covering” another for lunch was not told the patient had already received the medication
2. A Code Blue is called for a patient who is “DNR” because the patient’s code status is not communicated during change of shift report
3. A patient falls during an x-ray because the patient’s Fall Prevention Measures status was not communicated prior to transport
4. A patient is left alone in the room after transfer because the nurse was not informed the patient had arrived
5. A delay in care results when a nurse fails to notify the on-call physician of a change in the patient’s condition

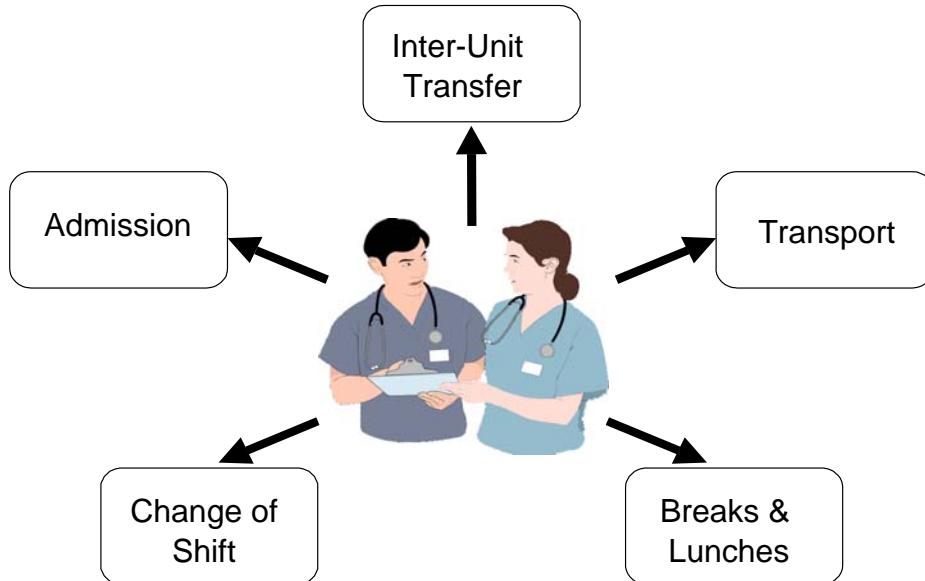
B. Effective hand-off communication must meet the following four requirements:

1. Is interactive between caregivers
2. Is up-to-date
3. Provides an opportunity for the receiver to verify the information and review relevant historical data
4. Has minimal interruptions by others

II. STRATEGIES TO SUPPORT SAFE AND EFFICIENT HAND-OFF COMMUNICATION²:

- A. Use clear language, avoiding vague, unclear, or potentially confusing terms (“he’s doing fine,” or “she’s lethargic”).
- B. Incorporate techniques to communicate effectively, such as limiting interruptions, allowing sufficient time, and focusing on the information being communicated. Use repeat back and clarifying questions to ensure common understanding.
- C. Standardize reporting, following the guidelines in Nursing Department Policy (Hand-off Communication, Nursing page 200.0-200.18) which describes responsibilities of RNs, LVNs, and NAs for hand-off communication. Also included are the recommended sequence and content to include in report. Following a consistent format increases recall, assists staff to record the information accurately, and improves their ability to plan patient care.
- D. Use technology to your advantage, ensure that documentation is up-to-date, orders are entered, and patient care equipment is set to the patient’s individual parameters as ordered by the physician.
- E. Finally, keep the report patient centered and avoid irrelevant details.

III. CRITICAL NURSING HAND-OFFS



Patient hand-offs occur many times during the patient's visit or hospital stay. Standards for hand-off communication apply to any situation in which two or more providers/team members communicate patient information for the purposes of maintaining continuity of care during a handoff. Critical hand-off points such as those identified in the diagram above provide greater opportunities for miscommunication and error. Whenever responsibility for patient care is transferred completely or temporarily, a verbal exchange of information should occur between accountable RNs/licensed nurses, following the specific guidelines for each patient care area as described in the Nursing Department Policy (Hand-off Communication, Nursing page 200.0-200.18). Finally, the hand-off is not complete unless it includes an opportunity for visual validation of the patients condition and review of documentation or historical data (eg, kardex, chart, daily flow sheet, MAR). The following hand-off communication that occurs during admission, change of shift, inter-unit transfer, breaks and lunches, and patient transport will be implemented based on the nurses' scope of practice.

A. Hand-off communication at admission

During admission, the hand-off communication from clinic or ED nurse to ward/ICU nurse should include but is not limited to information on:

1. Diagnosis/chief complaint and current condition
2. Situations to monitor
3. Stat admission orders
4. Supply and equipment needs
5. Known allergies and code status

For ED and Clinic admissions, prior to transfer from the sending unit, the originating area RN will complete an assessment and document on the *Admission Report Summary*. Upon arrival in the receiving unit an RN will validate, in the presence of the transporting staff member, the patient's clinical status as described in the verbal report and document on the *Admission Report Summary*.

B. Hand-off communication at change of shift

Experts encourage staff to include the following actions during shift report:

1. Diagnosis/Surgeries and current condition
2. Assessment and monitoring parameters
3. Current and changed orders
4. Plan of care goals including short-term and long-term outcomes
5. Patient teaching plan and progress
6. Patient safety concerns

7. Interdisciplinary coordination of care issues
8. Ongoing discharge planning factors

C. Hand-off communication at inter-unit transfer

Inter-unit transfers usually signify a change in patient acuity, such as a downgrade from ICU care to step down or ward; or may involve a change in medical service. The reason for transfer is important to communicate along with information on:

1. Diagnosis/chief complaint and current condition
2. Transfer orders
3. Supply and equipment needs
4. Known allergies and code status
5. Medications given and due
6. Patient safety concerns
7. Interdisciplinary coordination of care issues

For inter-unit transfers prior to the originating area RN will complete an assessment and document on the Inter-Unit Transfer form. Upon arrival in the receiving unit an RN will validate, in the presence of transporting staff member, the patient's clinical status as described in the verbal report and document on the Inter-Unit Transfer form as appropriate.

D. Hand-off communication at breaks and lunches

Breaks/lunches or when the primary assigned nurse has to leave the unit temporarily are considered a hand-off and must meet the requirements of all effective hand-off communications. The hand-off is general brief, but includes enough information for the "covering" nurse to be able to manage any patient care need or emergency situation that arises during the assigned nurse's absence, including but not limited to:

1. Diagnosis/Surgeries and current condition
2. Current and changed orders
3. Patient safety concerns
4. Medications given and due
5. Known allergies and code status

E. Hand-off communication at patient transport

Patient transport to tests or procedures is a special type of hand-off in that the communication may not only occur between nurses, but may include hand-off from licensed to non-licensed care givers. For hand-offs to non-licensed personnel, the nurse must follow the procedure described below:³

1. Whenever non-licensed staff transport patients*, a "Ticket to Ride: Patient Transport Hand-off" form, containing key patient information, will be completed by a licensed nurse, reviewed with and handed to the non-licensed escort prior to transport.

*Exceptions:

- a. When the patient is transported to OR/L&D/OSSA, Endoscopy, Cath Lab, Interventional Radiology, OR if a pre-op/pre-procedure checklist has been completed for the patient, a "Ticket to Ride" does not have to be completed.
- b. For admissions (ER, clinic) or inter-unit transfers- the "Ticket to Ride form" is not used.
- c. If the patient is transported by an RN to another area, then it does NOT have to be done. Nursing Hand-off Communication guidelines specific to the area apply.
2. The non-licensed staff member will hand the form to the provider in the receiving (diagnostic, procedural, or clinical) area for review.
3. Upon return to the originating area or unit, the non-licensed staff member should hand the form to the accountable nurse who will document the time the patient returned and place the form in the patient whereabouts binder to be retained for one month or the duration of the patient's inpatient stay (whichever is longer).

IV. INTERDISCIPLINARY HAND-OFFS

The primary objective of any patient hand-off is the accurate transfer of information in a systematic manner that is timely and explicitly understood. When communicating with physicians and other interdisciplinary team members, who are not immediately familiar with the patient, it is especially critical to communicate in a concise and efficient manner.

SBAR (acronym for Situation, Background, Asessment, and Recommendation) is a communication framework for effectively briefing team members on the patient problem or clinical situation. The SBAR technique has been shown to enhance clarity and understanding to get everyone moving in the same direction as quickly as possible. When using SBAR to communicate, the nurse should be prepared with relevant information such as most recent vital signs and laboratory results, current symptoms or change in condition, current medications, allergies, IV fluids, and laboratory values, as well as background information from the patient's chart.

Prior to utilizing SBAR, staff members should read Nursing Department Policy (Communication, Interdisciplinary Team, page 115.0) and the appendix, entitled SBAR Report to a Physician. The attachment is a guide with communication cues for each step. SBAR is an effective tool for communicating in most situations, so it is recommended that staff practice with various situations to become more proficient. SBAR can help bridge the interdisciplinary gap, facilitate more mutually satisfying communication, and most importantly, assure that the other provider hears critical information.

V. CONCLUSION

What is important to patients and their families is that effective systems for transferring patient-related information be in place so that the information is accurate and available when needed.⁴ Although The Joint Commission requirements for hand-off communication apply to all health care providers across the health care continuum, nurses share responsibility for coordinating care through effective communication within and across care settings. As patient advocates and leaders of the patient care team, nurses have a responsibility to ensure patient safety through effective hand-off communication.

SBAR Report



BEFORE CALLING THE PHYSICIAN:

1. Assess the patient
2. Review the chart for the appropriate physician to call
3. Know the admitting diagnosis
4. Read the most recent physician and nursing notes
5. Have the chart in hand and be ready to report allergies, medications, IV fluids, lab and test results.
6. Every SBAR report is different. Focus on the problem. Be concise. Not everything in the outline below needs to be reported -- just what is needed for the situation.

S

Situation

- State your **name** and **unit**
- "I am calling about: **Patient Name & Room Number**"
- "The **problem** I am calling about is: _____"
- If this is a serious problem say what the code status is.

B

Background

- Briefly state **why the patient is in the hospital** give a synopsis of the treatment to date.
- Give the **vital signs**, oximetry, and how much oxygen is being given.
- Relate the **complaint** given by the patient and the pain level.
- Relate the **physical assessment** pertinent to the problem especially any changes.
- Pay special attention to **mental status**, skin temperature and emotional state of the patient.

A

Assessment

- Give your **conclusions** about the present situation. Words like "might be" or "could be" are helpful. A diagnosis is not necessary.
- If the situation is unclear at least try to indicate what **body system** might be involved.
- State **how severe** the problem seems to be.
- If appropriate, state the problem could be **life threatening**.

R

Recommendation

- Ask for **whatever you think you need to care for your patient**, which might include:
 - An order or request for an in-person physician evaluation
- Make sure to clarify how often to do vital signs and under what circumstances to call back.



BE SURE TO DOCUMENT:

- * **THE CHANGE IN PATIENT'S CONDITION**
- * **THE PHYSICIAN NOTIFICATION**
- * **ACTION TAKEN**

PLEASE COMPLETE THE STUDY QUESTIONS ON THE NEXT PAGE

HAND-OFF COMMUNICATION

Study Questions

1. A *Ticket to Ride* form should be used for which of the following situations?
 - a. A CNA is transporting a patient to X-ray
 - b. RN is admitting a patient from ER or Clinic
 - c. A surgical tech is transporting a patient to OR for surgery
 - d. An RN and LVN are transferring a patient from a medical/surgical ward to an ICU (inter-unit transfer)
2. All of the following are critical nursing hand-off situations **EXCEPT?**
 - a. Admission
 - b. Transport
 - c. Room change
 - d. Inter-unit transfer
3. Which of the following is important to include during inter-unit transfer communication?
 - a. Transfer orders
 - b. Supplies and equipment needed
 - c. Diagnosis/chief complaint and current condition
 - d. All of the above

Answers to Study Questions

1. a
2. c
3. d

If you answered all of the questions correctly, go on to the next section of this competency. If you missed 1 or more of the questions, read the content again and repeat the study guide questions.

HAND-OFF COMMUNICATION

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FAMILY VIOLENCE

Objectives:

Upon the completion of this section, the employee will be able to:

1. Identify a leading cause of death in infants, children, and adolescents in the U.S.
2. Define elder/dependent adult, child and intimate partner violence
3. List three common signs of physical abuse
4. State the reporting requirements for healthcare providers when abuse is detected or suspected

Instructions to the Employee:

Please read the following section, then answer the study questions at the end of the section.

FAMILY VIOLENCE

I. INTRODUCTION

- A. Family violence is a comprehensive term that involves violence against children and adults including the elderly and/or dependent adults. One component of family violence is intimate partner violence which is violence between domestic partners whether a spouse, boyfriend and/or girlfriend, or previous partner. Millions of Americans in the United States are affected by family violence each year. Although family violence may occur against males, the majority of victims are women and children. The National Crime Victimization Survey (NCVS) estimates that more than 1 million non-fatal domestic violence incidents and 1,800 murders occur annually as a result of domestic violence.¹
- B. Family violence involves child abuse, sexual abuse, intimate partner abuse and elder or dependent adult abuse. The abuse can be physical or emotional. There are mandatory reporting requirements for abuse. For child and elder/dependent adult abuse, reporting is mandatory even if there is not a current injury. Reporting is mandatory for domestic violence when the patient has a current injury as a result of the abuse. Any healthcare provider who fails to report abuse may be found guilty of a misdemeanor and fined \$1,000 and/or six months in jail.

II. CYCLE OF VIOLENCE

- A. Violence often occurs in patterns. The cycle of violence typically has three phases. **First**, there is a period when the batterer gets edgy and tension builds up. **Second**, the batterer explodes and abuse occurs. This can last a few minutes or several hours. In the **third** phase, there is a period of relative calm and making up (also known as the "honeymoon phase"). The batterer may be sorry or act as if nothing happened. He or she is interested in resolving the situation and often promises never to do it again. However, the tension almost always starts to build over time and the cycle starts again.

III. THE ABUSER/BATTERER

- A. There are no “typical” abusers. They come from all ethnic groups and cross all social and economic boundaries. Some common characteristics include: low self esteem, social isolation, unrealistic expectations of the child, elder or spouse, unmet emotional needs, need to control, role reversal, substance abuse and multiple stressors. Frequently, the batterer will hover over the victim and have difficulty being separated from the victim or appear overly concerned.

IV. TYPES OF ABUSE

A. Child Abuse

1. Child abuse includes physical and emotional abuse, neglect, intentional poisoning, sexual assault, and maternal to fetal drug abuse. Children younger than 4 years old are at greatest risk of severe injury or death. In 2003, children younger than 4 years accounted for 79% of child maltreatment fatalities, with infants under one year accounting for 44% of deaths (DHHS 2005).²

B. Elder/dependent adult abuse

1. Elder abuse and neglect is defined by the American Medical Association as “actions or the omission of actions that result in harm or threatened harm to the health or welfare of the elderly”.³ The incidence of elder abuse is estimated to affect 1.5 to 3.2 million people. The number of reported cases has steadily increased over the years.⁴ Elder abuse includes persons over age 65.
2. Dependent adults are persons aged 18-65 who are mentally or physically challenged. Elder abuse is difficult to detect since its victims tend to be isolated and are often reluctant to report abuse and/or neglect caused by the caretaker. Frequently the caretaker is a family member. There is

often fear of losing the caretaker's assistance or personal independence if abuse is reported.

3. The primary types of elder/dependent adult abuse include: physical abuse, abandonment, neglect or intentional emotional or psychological abuse, a violation of personal rights and financial abuse or material exploitation.

C. Intimate partner abuse

1. Intimate partner abuse is also referred to as spousal abuse, partner abuse or domestic abuse. This form of abuse is defined as "the use of physical and/or emotional force in intimate relationships among adults".⁵ Although males and females can be victims of intimate partner abuse, the victim is most commonly the female in heterosexual relationships. Intimate partner abuse can also occur among same sex couples. Most cases of intimate partner violence go unreported, making it difficult to determine the actual incidence. One study showed that 27% of female patients presenting to the emergency department had a history of physical or nonphysical partner abuse in the previous year.⁶ Approximately "2000 women die each year at the hands of men who say they love them".⁵
2. Forms of intimate partner abuse include physical violence, sexual assault, psychological assault and economic coercion. The victim often lives every day in fear of the batterer. There are many reasons why the victim may not be able to leave the abuser. If the victim leaves, the victim or the family may face more severe violence. The victim has to leave the home, family and friends and may risk losing the children. In addition, the victim may have no other means of economic support.

D. Sexual abuse

1. Sexual abuse or rape is sexual activity perpetrated against the will of a victim. Sexual assault is a crime of power and control, not a crime of passion. Sexual assault victims include women, children and less often men. The InterAgency Council on Child Abuse and Neglect (ICAN) identifies sexual abuse for a child as "any sexual activity between a child and an adult or person five years older than the child. This includes exhibitionism, lewd and threatening talk, fondling, and any form of intercourse".⁵
2. Medical symptoms may accompany and indicate sexual abuse. The complaints are generally located in the ano-genital region. Vague, non-specific complaints are also common.

V. IDENTIFICATION OF ABUSE

Healthcare workers must be aware of the signs and symptoms of abuse in order to quickly and accurately identify the victim and file the appropriate reports. The various types of abuse are exhibited in many ways, but the following information includes some of the typical findings for each.

A. Physical abuse

1. Physical abuse involves the willful infliction of physical pain, injury or unreasonable confinement. Injuries associated with physical abuse include: cuts, bruises, broken bones, sprains, facial injuries, organ contusions, burns, miscarriages related to trauma, use of drugs and alcohol during pregnancy and unprotected exposure to extreme temperatures. Clues to a history of physical abuse include numerous scars, bruises over soft tissues and/or fractures in different stages of healing, and marks on the body indicating objects used to inflict pain (belt loops, rope, cigarette burns or a chain). In partner abuse, the risk of physical abuse increases when the woman becomes pregnant.

B. Neglect

1. Neglect is the failure of the caregiver to adequately provide care and support. Although there

may be no physical signs of abuse, neglect can leave lasting mental and physical problems. Neglect can include the failure to provide any of the following: food, clothing, or shelter, assistance in personal hygiene, medical care, protection from health and safety hazards and nutrition. Neglect can also involve the lack of human contact, care and support.

C. Sexual abuse

1. Typically, the adult victim will report the abuse. If the victim is a child, pain and bleeding are the most common complaints. Other medical symptoms that may indicate abuse include: itching, dysuria, discharge, constipation, encopresis, enuresis, chronic recurrent abdominal pain, sexually transmitted diseases and unexplained genital trauma. Behavioral indicators may include appetite or sleep disturbances, phobias, neurotic or conduct disorders, guilt, acting out, withdrawal, depression, or excessive sexual behavior.

VI. INTERVENTIONS

- A. Healthcare providers are obligated by law to report any suspected or identified child abuse and elder/dependent abuse. Intimate partner abuse must be reported if there is a current injury. The issue of abuse must be addressed and follow-up care initiated. Harbor-UCLA Medical Center has social services staff available to assist in identification, evaluation and reporting the various forms of abuse. Referrals and assistance to community resources are also available through the Clinical Social Work Department. The National Domestic Violence hotline 1-800-799-SAFE is a 24-hour resource to help victims find local assistance. Rainbow Services is a local Domestic Violence 24-hour community resource for Harbor-UCLA, contact number is 310-547-9343.

1. Healthcare providers should provide the following:

- A private environment to interview and examine the patient
- A safe environment. If the batterer is not present and the chief complaint is abuse, safety is a concern. Location of the batterer, available weapons, influence of drugs or alcohol and whether or not he/she knows the victim's location are all important to ensure the safety of the victim and staff.
- A non-judgmental, non-critical attitude
- Treatment for injuries, preparation of the patient for all required tests, lab work and photographs
- Referrals to clinical social work department, advocates, shelters, and 24 hour hotlines
- Education of the victim regarding abuse and a safety plan
- Adequate documentation of statements made by the victim, description of injuries, who caused the injuries, photographs of injuries and behaviors noted. Documentation is necessary and important. Complete documentation can support the victim's case in court.

VII. LEGAL ISSUES

A. Reporting requirements

To provide for the safety of the victim, there are mandated reporting requirements for health practitioners when abuse is detected or suspected. Health practitioners are defined as a physician or surgeon, resident, intern, and licensed nurse as well as others. For the full definition see State of California Penal Code Section 1165B.⁷ At Harbor-UCLA Medical Center, County Police and the Clinical Social Service Department can be contacted to assist with reporting the abuse.

The requirements are as follows:

1. Child Abuse: The State of California Penal Code mandates that all health practitioners report incidents of suspected abuse or neglect of children to a child protective agency immediately or as soon as possible by telephone. They must also prepare and send a written report *within 36 hours* of receiving the information. Reporting is mandatory even if there is not a current injury.⁷

A child is defined as any person under the age of 18 years. The 24 hour Department of Child Protective Services (DCS) hotline number is 1-800-540-4000.

2. Elder/dependent adult abuse: State law AB 3988 mandates all healthcare providers to report incidents of suspected dependent adult/elder abuse immediately or as soon as possible following these procedures:
 - A. Any employee (care custodian, health care practitioners, and support staff) who learns of a suspected elder or dependent adult abuse situation must:
 1. Notify the patient's physician.
 2. Complete a Report of Suspected Dependent Adult/Elder Abuse form
 - B. Health Care Practitioner Care Custodian
 1. If the victim is an inpatient, or is being admitted to the hospital, place a request for consultation by the Clinical Social Work Department via the Hospital Information System.
 2. Enter a PSN report documenting the suspected abuse and the agency notified.
 3. Take the following steps depending on where the abuse occurred:
 - a. Incident occurred in a Private residence:
 - 1) Call the Elder Abuse Hotline at Adult Protective Services (APS) at (213) 351-5431 Monday – Friday 8:30 am to 5 pm or (877) 477-3646 after hours, weekends, and holidays.
 - 2) FAX the Report of Suspected Dependent adult/Elder Abuse immediately to Adult Protective Services at (213) 738-6485. Mail the original report within 48 hours to Adult Protective Services Central Intake at 3333 Wilshire Blvd. 4th Floor, Los Angeles, California, 90010.
 - b. Incident occurred in a Licensed facility outside of Harbor-UCLA Medical Center:
 1. Call the local Los Angeles County Ombudsman at (800) 334-9473 Monday – Friday 8:30 am to 5 pm or (800) 231-4024 after hours, weekends, and holidays.
 2. FAX the Report of Suspected Dependent Adult/Elder Abuse to the Los Angeles County Ombudsman at (310) 395-4090. Mail the original report within 48 hours to WISE Senior Center Ombudsman Program at P.O. Box 769, Santa Monica, California, 90406-0769.
 - c. Incident occurred at Harbor-UCLA Medical Center:
 1. Notify the Los Angeles County Sheriff Dept. at x. 3311
 2. IMMEDIATELY contact your supervisor/manager.
 3. FAX the Report of Suspected Dependent Adult/Elder Abuse immediately to Adult Protective Services at (213) 738-6485. Mail the original report within 48 hours to Adult Protective Services Central Intake at 3333 Wilshire Blvd. 4th Floor, Los Angeles, California, 90010.
 - C. Unit Clerk

Unit clerks, when available, will assist in FAXING and mailing the reports.
 - D. Supervisors/Manager

The supervisor/manager is responsible to ensure appropriate agencies have been notified and a PSN report has been completed.
 3. Intimate partner abuse: State law AB 1652 requires that when physical injury occurs in cases of intimate partner violence, healthcare providers are required to report the violence as soon as possible to local law enforcement by telephone.⁷ A written report shall be sent *within 48*

hours of receiving the information. At Harbor-UCLA Medical Center, Los Angeles County Sheriff's should be notified and they will contact local law enforcement. If there is a history of physical abuse but no physical findings, a recommendation can be made to the victim to contact law enforcement. In this situation, it is not required for the healthcare provider to contact law enforcement.

4. Any mandated reporter who fails to report abuse may be guilty of a misdemeanor punishable by imprisonment or a fine. In addition, a mandated reporter who fails to report abuse may be held liable for civil damages for any subsequent injury to the victim. Professionals who are legally required to report suspected abuse have immunity from criminal and civil liability for reporting as required or authorized.

PLEASE COMPLETE THE STUDY QUESTIONS

FAMILY VIOLENCE **Study Questions**

Select the best answer to each question. **DO NOT** write in the manual.

1. A leading cause of death in infants and children in the United States is:
 - a. Abuse
 - b. Epiglottitis
 - c. Spousal abuse
 - d. Sexual assault
2. Elder/dependent adult abuse includes:
 - a. The failure of government to care for the elderly
 - b. Neglecting a child's need for food, clothing and shelter
 - c. Physical force used to control a patient in a nursing home
 - d. Various manifestations of abuse or neglect of an older person by persons upon whom she or he depends
3. Bruising and fractures may be evidence of what type of abuse?
 - a. Neglect
 - b. Exploitation
 - c. Physical abuse
 - d. Emotional abuse
4. Healthcare providers who fail to report suspected or identified child or elder/dependent adult abuse may be:
 - a. Complying with the victim's request
 - b. Expressing their right to not get involved
 - c. Guilty of a felony punishable by imprisonment and a fine
 - d. Guilty of a misdemeanor punishable by imprisonment or a fine

CHECK YOUR ANSWERS TO THE STUDY QUESTIONS ON THE NEXT PAGE

Answers to Study Questions

1. a 2. d 3. c 4. d

If you answered all the questions correctly, go on to the next section. If you missed one or more, read the content again and repeat the study guide questions.

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PAIN MANAGEMENT

Objectives:

Upon completion of this section, the employee will be able to:

1. Identify patients' rights regarding assessment and treatment
2. Identify severity of a pain score based on a 0 to 10 pain scale
3. Identify the pain score at which pain interventions should be initiated and/or revised
4. Identify principles of pain management

Instructions to the Employee:

Please read the following section, then answer the study questions at the end of this section.

PAIN MANAGEMENT

I. BACKGROUND

Despite scientific and medical advances which have provided a better understanding of pain and its treatment, pain is often undertreated. Hospitals around the country are beginning to improve the way they approach the assessment and treatment of pain. Pain management is a focus of concern and assessment by The Joint Commission which has established standards in this area of patient care.

In addition to The Joint Commission's new standards, the State of California, under Title 22, issued a Legislative Bill AB 791 that was signed into law on 9/15/1999. This Bill included Section 1254.7, which reads:

- a) Pain is to be assessed and treated promptly, effectively, and for as long as pain persists.
- b) Every health facility licensed pursuant to this chapter shall, as condition of licensure, include pain as an item to be assessed at the same time as vital signs are taken.¹

II. STANDARDS ON PAIN MANAGEMENT

The Joint Commission requires that all hospitals:

- A. Recognize a patient's right to appropriate assessment and management of his/her pain
- B. Assess the existence, nature, and intensity of pain in all patients
- C. Record the results of pain assessment in a way that facilitates regular reassessment and follow-up
- D. Establish policies and procedures supporting appropriate prescription and ordering of pain medications
- E. Monitor patients continuously after procedures for pain intensity and quality and responses to treatment
- F. Ensure staff competency in pain assessment and management and address pain management in the orientation of all new staff
- G. Teach patients about pain and about managing pain as part of their treatment
- H. Educate patients and their families about effective pain management practices
- I. Address each patient's need for pain management in the discharge planning process
- J. Collect data about the appropriateness and effectiveness of pain management

III. ORGANIZATIONAL STATEMENT ON PAIN ASSESSMENT AND MANAGEMENT

Harbor-UCLA Medical Center supports every patient's right to have his/her pain assessed and treated. Untreated pain may have negative effects on a patient's physical, emotional, and spiritual health. An individual in pain may have difficulty accepting, participating in and responding to medical treatment. Patients receiving care at Harbor-UCLA Medical Center have their pain assessed on initial treatment. When pain is present, a detailed assessment will be performed which includes identification of the intensity, quality, location, duration, and other characteristics of pain. Pain assessment appropriate to the patient's age will be recorded to facilitate regular reassessment and follow-up. The patient will be reassessed if the pain persists or the initiation of potentially painful procedures, or with changes in the patient's medical status.

Because pain is a subjective experience, each patient is the best judge of the intensity of his/her pain and the effectiveness of his/her treatment. If the patient is unable to communicate with the healthcare team, input will be sought from the patient's family or significant other(s) regarding the patient's pain and its treatment.

Patients will be educated about pain and its treatment. A variety of interventions will be made available. Education on the assessment and treatment of pain will be taught to staff involved in patient care appropriate to their patient population.

IV. THE CARE OF A PATIENT IN PAIN

Pain management revolves around four components: assessment, treatment, education, and documentation. Key points from each component are described below:

A. Assessment – pain as the fifth vital sign

All patients receiving care at Harbor-UCLA Medical Center will have their pain assessed upon initial treatment and will be routinely reassessed at the same time a complete set of vital signs is taken, at the initiation of potentially painful procedures, and when changes in medical status occur.

1. The following principles of pain assessment should be followed:
 - a. Ask the patient about the presence of pain. Be proactive.
 - b. Believe the patient's report of pain.
 - c. Since patients have little experience with pain scales, provide comparative examples such as no pain is 0, toothache is 4, labor pain is 8 and the "worst possible pain" is 10.
 - d. Perform a complete initial assessment of the patient's pain, which includes the following:
 - 1) Onset, location, duration, characteristics, aggravating factors, relieving factors, associated symptoms, intensity (OLDCARAT)
 - 2) The source and origin of the patient's pain
 - 3) Aggravating and relieving factors – what makes the pain worse or better?
 - e. To provide a standardized approach to pain assessment by staff in all departments in all patient care settings, a number of pain assessment tools have been identified for use at Harbor-UCLA Medical Center. Selection of the appropriate tool is based on patient's age, cognitive ability and condition.
2. Tools used at Harbor-UCLA include the following:
 - a. Universal tools
 - 1) **Numeric Rating Scale.** A scale from which the patient is asked to verbally rate pain intensity on a scale of 0-10.
 - 2) **Bieri Faces Pain Scale.** A self-report measure used to assess the intensity of pain. Initially developed for the use in children, and is now used in adults as well because it has been found reliable and valid. There are 6 faces arranged along a horizontal line in increasing pain intensity. Each face has a corresponding numeric score. Numeric scores are 0-2-4-6-8-10.
 - 3) **Discomfort Indicator Scale for the Cognitively Impaired.** An observational tool of six categories of behaviors, which include noisy breathing, negative vocalization, sad facial expression, frightened facial expression, tense body language and fidgeting.

b. Pediatric populations

- 1) **Premature Infant Pain Profile (PIPP).** A multidimensional tool that consists of 7 indicators which include three behavioral indicators: brow bulge, eye squeeze, nasolabial furrow, and two physiological indicators: heart rate and oxygen saturation. Total possible score is 21.
- 2) **Echelle Douleur Inconfort Nouveau – Ne (EDIN) Scale.** Five behavioral indicators of prolonged pain: facial activity, body movements, quality of sleep, quality of contact with nurses and consolability. Each descriptor is scored 0-3, for a total possible score of 15.
- 3) **Poker Chip Tool.** Four red poker chips that are used to indicate “pieces of hurt”.
- 4) **FLACC.** An observational tool that consists of five behavioral indicators of pain. Each item is scored 0-2, resulting in a total score between 0 and 10.

c. Proxy pain report

When a patient cannot self-report pain, such as a severely cognitively impaired individual, the nurse can ask a family member or other significant other to rate the patient's pain. This is called a proxy pain report. Whenever possible, the proxy pain rating shall be accompanied by the clues used by the rater to arrive at the pain rating number. For example, the family member may guess that the patient's pain is a 6 because the patient is frowning and moving his legs in bed. The following apply to the use and interpretation of proxy pain ratings:

- 1) Proxy pain ratings are merely a guess and should be used in conjunction with other assessment data in determining pain management interventions.
- 2) Ordinarily, proxy pain ratings are not used along with the patient's pain ratings because this violates the foundation of pain assessment – only the patient can feel the pain. However, in a confused or demented patient who occasionally or irregularly reports pain or gives inconsistent information, the patient's pain ratings may be used along with proxy pain ratings.
- 3) When an observational tool is appropriate to use (eg, FLACC), the proxy pain rating shall be considered in conjunction with the observational tool score.
- 4) The Numeric Rating Scale (NRS) should be used as the tool to obtain a proxy pain rating.
- 5) A proxy pain rating shall be documented as such in the medical record.
- 6) Therapeutic interventions should not be decided solely, based on proxy pain report.
- 7) Vital signs may be considered with caution during a proxy pain assessment. Vital sign changes occur only in acute pain, not chronic pain. Additionally, many conditions (eg, fever) and drugs (eg, beta-blockers) can alter the normal physiologic responses to pain.

d. Assumed pain present

When a patient is unable to self report and condition or therapy renders use of an established pain assessment tool inappropriate (eg, patient is receiving neuromuscular blockers and/or is on heavy sedation), a pain treatment plan may be initiated based on assumed pain present. Examples of criteria that may be used to determine the presence/absence of assumed pain include:

- 1) Presence of pathologic conditions or procedures that usually cause pain (eg, trauma, surgery).
- 2) Behaviors such as facial expressions, body movements, groaning, crying
- 3) Physiologic measures (eg, changes in heart rate, blood pressure, intracranial pressure) – these are often the least sensitive indicators of pain in the critically ill patient.

If the nurse thinks the patient is having pain following assessment based on the above criteria, the nurse will record “Assumed Pain Present”. A numeric score is not assigned.

3. Pain ratings

a. The following severity levels apply for pain scores that use a scale of 0-10:

Mild pain: 1-3

Moderate pain: 4-6

Severe pain: 7-10

b. For most patients, a pain rating of greater than 3, on a 0-10 scale, signals the need to either initiate or revise pain interventions. Revisions to the pain treatment plan may include adding or changing analgesics, increasing an analgesic dose, and/or adding a non-pharmacological strategy.

B. Treatment

Pain treatment is based upon underlying principles of pain management and analgesic pharmacology, standard guidelines for opioid dosing/titration, and opioid equivalency, non-opioid treatment of chronic pain syndromes, and pain management protocols.

The following principles of pain management should be followed:

1. When possible, provide treatment that is specific to a patient's diagnosis as well as to potentially painful procedures.
2. Do not use a placebo in the assessment or management of pain unless it is a part of a clinical study approved by the hospital's Institutional Review Board.
3. Assess the results of treatment and adjust therapy accordingly until the best possible outcome is achieved. Use pharmacological and non-pharmacological interventions to achieve optimum pain relief.
4. Provide the patient with realistic goals and expectations. A "pain free" hospital or healthcare experience is not always realistic, but minimizing of pain and managing of unavoidable induced pain are realistic goals.
5. Healthcare providers will work collaboratively to provide the best pain management regime/treatment plan for the patient.

C. Reassessment

Reassessment is key in achieving an effective pain management regimen. Nurses are to monitor pain routinely and record it as a fifth vital sign. Reassessment should occur on a regular basis after an initial report of pain and following each intervention taken to relieve the pain. Reassessment following an intervention should occur in a time frame appropriate to the intervention. In addition, it is very important to document the effectiveness of the interventions provided. Patient reassessment and outcome documentation provide valuable information that will guide and dictate the patient care plan for pain management. Many patients wait until their pain is severe to ask for medication, which makes pain control much more difficult. Patients that are able to anticipate pain and ask for medication accordingly, report better pain control than those who wait for their pain to become severe before asking or taking medication.

D. Education

1. Patient and family education

a. Patients and their families will be informed of their right to adequate pain management and the role they can play in working with our staff to assure effective pain management.

- b. Patients and/or caregivers will be counseled by pharmacy personnel regarding the use of pain medication(s). Instructions regarding the use of non-pharmacologic interventions for pain management and when and how to contact a healthcare professional will also be provided.
2. Staff education

Pain management education is provided to all new hospital staff involved in patient care at their initial orientation and to all clinical staff as part of the hospital's annual Reorientation program. In addition, individual departments periodically provide their staff with pain management education appropriate to their particular patient population.

E. Documentation

Initial screening of pain will be documented in the nursing admission flowsheet. Subsequent assessments, treatments, reassessments, and patient/family education will be documented on the appropriate forms.

F. Evaluation

Evaluation of the pain management regimen is a circular process. It begins when the nurse first assesses the patient's pain by performing a complete pain assessment of the physiological and behavioral changes, including the patient's own self report. There are various assessment tools used in helping with the communication of the intensity of pain. This is followed by pharmacological and/or non-pharmacological modalities identified by the multi-disciplinary care team. After an identified period of time, patients are reassessed as to the relief of pain, or for further analysis of the effectiveness of the intervention used. At this time, the nurse can choose to continue with the same intervention, or call the physician to discuss other alternative interventions. This process of assessing, treating, and reassessing the patient's pain is a circular process that may continue on for a long time until the patient's pain is relieved.

PLEASE COMPLETE THE STUDY QUESTIONS

PAIN MANAGEMENT
Study Questions

Select the best answer to each question. **DO NOT** write in the manual.

1. According to the legislative standards on pain management, pain should be assessed at the least:
 - a. Once a day
 - b. Every one hour
 - c. Every eight hours
 - d. Every time a full set of vital signs is done
2. Placebos should be used to manage pain in substance abuse patients.
 - a. True
 - b. False
3. On a pain scale of 0 to 10, a pain score of 6 represents which level of pain?
 - a. Mild
 - b. Severe
 - c. Moderate

4. For most patients, a pain rating than _____, on a 0 to 10 scale, signals the need to either initiate or revise pain interventions.
 - a. 2
 - b. 3
 - c. 8
 - d. 10
5. Following an intervention to relieve pain, reassessment of the patient's pain rating should occur:
 - a. Within one hour
 - b. With the next set of vital signs
 - c. Within a time frame appropriate to the intervention
 - d. When the patient calls the nurse still complaining of pain

Answers to Study Questions

1. d 2. b 3. c 4. b 5. c

If you answered all of the questions correctly, go on to the next section. If you missed one or more, read the content again and repeat the study guide questions.

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EMERGENCY MEDICAL TREATMENT AND ACTIVE LABOR ACT (EMTALA)

Objectives:

Upon the completion of this section, the employee will be able to:

1. State the purpose of the EMTALA legislation
2. Discuss the expanded scope of EMTALA and how the changes impact areas of the hospital
3. Discuss medical screening and transfer requirements related to EMTALA
4. Identify potential violations of EMTALA regulations and their impact

Instructions to the Employee:

Please read the following section, then answer the study questions at the end of the section.

EMERGENCY MEDICAL TREATMENT AND ACTIVE LABOR ACT (EMTALA)

I. INTRODUCTION

- A. The Emergency Medical Treatment and Active Labor Act (EMTALA) is a statute under the larger umbrella of the Consolidated Omnibus Budget Reconciliation Act (COBRA). EMTALA is designed to enhance access by all persons to emergency services and prohibit discrimination in the provision of emergency services to persons presenting with similar types of conditions regardless of financial or insurance status. EMTALA is also referred to as the antidumping law.
- B. The current definition of EMTALA includes patients anywhere on the campus. Expansion of the definition includes the **outpatient clinics, emergency department, labor and delivery, psychiatric emergency department and any port of entry to the hospital or grounds.**
- C. There are many components to EMTALA and compliance with all portions is mandatory for any hospital receiving Medicare reimbursement. Any institution that fails to comply with the regulations imposed by EMTALA may be subject to monetary penalties and risks termination of its Medicare provider status.

II. BASIC EMTALA REQUIREMENTS

- A. Although there are many components of the EMTALA law, some basic requirements include: providing a medical screening examination to all patients seeking examination or treatment for a medical condition, providing stabilizing treatment to those patients with emergency medical conditions and maintaining logs of all patients that present for care and transfers in and out of the facility.
- B. A central log must be kept in each area that receives walk in or emergency patients. If a patient presents for medical care, the log must include the patient's name and whether the person was transferred and where the patient was transferred to.
- C. The Medical Center must provide a medical screening examination to all patients who request examination or treatment for a medical condition regardless of ability to pay. This also applies to patients who present at clinics requesting services. This examination must be the same for each individual presenting with the same complaint. The screening examination may include a physical assessment, consultation from an on-call specialist, laboratory or radiological tests or any means of determining whether an emergency medical condition exists. The medical screening examination cannot be delayed while determining the patient's ability to pay or insurance coverage.
- D. If the facility is unable to provide a medical screening examination, then the patient must be appropriately transferred to an area such as the emergency department.

III. TRANSFERS

- A. EMTALA also applies to emergency patients who are transferred into or out of Harbor-UCLA Medical Center. Caring for patients transferred into the facility requires knowledge of previous treatment. Adequate documentation and information must be received from the hospital sending the patient. EMTALA requires notification of the receiving hospital and copies of the patient's chart, X-rays, EKGs, laboratory work and any other necessary information to be sent with the patient. Requests from other hospitals to transfer a patient should always be accepted when the patient is requiring higher level of care.
- B. Patients who are transferred out of Harbor-UCLA must be sent with all documents listed above that would aid the receiving facility. In addition to the above mentioned information, the patient must be informed of the risks and benefits of transfer. The benefits of transfer should outweigh the possible risks. Consent to transfer must be evident. The patient must be stabilized prior to transfer. All transferred patients must be transferred with equipment and personnel appropriate for the medical

condition for which the transfer is initiated. The appropriate mode of transport is required as well as qualified personnel to accompany the patient.

- C. All transfer patients must have evidence of EMTALA requirements documented in both the sending and receiving hospitals. Any failure of a hospital to comply constitutes a violation and the hospital noting the failure is mandated to report the violation within 72 hours. Failures to report a violation can also result in a fine.

IV. VIOLATIONS

- A. Alleged violations of EMTALA regulations are investigated by the Center for Medicare & Medicaid Services (CSM). Hospitals and physicians that are found to be in violation of EMTALA can be fined up to \$50,000 for each violation and the hospital's Medicare participation agreement can be terminated. The fines can be both personal and institutional. All violations are public record and can be used in malpractice suits.
- B. EMTALA violations can be devastating to a facility. The way to avoid citations is to comply with the regulations. In order to comply with EMTALA, staff members must be informed of the regulations and the penalties.

PLEASE COMPLETE THE STUDY QUESTIONS

EMERGENCY MEDICAL TREATMENT AND ACTIVE LABOR ACT (EMTALA) Study Questions

Select the best answer to each question. **DO NOT** write in the manual

1. EMTALA is designed to:
 - a. Cover only patients who have no medical insurance coverage
 - b. Frustrate hospitals into eliminating their Medicare provider status
 - c. Enhance access by all persons to emergency services regardless of financial or insurance status
 - d. Minimize the workload on the county hospitals by mandating patients be seen wherever they present
2. EMTALA applies to the following areas:
 - a. Only clinic patients
 - b. Only private hospitals
 - c. Only emergency departments
 - d. Clinics, emergency department, labor and delivery, psychiatric emergency department
3. According to EMTALA, a medical screening examination must be completed for the following patients **EXCEPT:**
 - a. Any patient admitted for same day surgery
 - b. Any patient presenting to the emergency department
 - c. Any patient presenting to labor and delivery in active labor
 - d. Any patient walking in to a clinic asking to be seen for a medical condition
4. Potential penalties for violations to EMTALA include:
 - a. Loss of license
 - b. Reduction in number of staff hired
 - c. Tickets from law enforcement to individuals involved

d. Monetary fines and termination of Medicare participation status

Answers to Study Questions

1. c 2. d 3. a 4. d

If you answered all of the questions correctly, go on to the next section. If you missed one or more, read content again and repeat the study guide questions.

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TRANSMISSION OF INFECTIOUS DISEASES

Objectives:

Upon completion of this section, the employee will be able to:

1. Identify the most common methods of disease transmission from one person to another
2. Identify factors that render an individual susceptible to infection
3. Identify three situations in which hand hygiene with alcohol-based hand rub is acceptable
4. Discuss three types of transmission-based precautions at Harbor-ULCA

Instructions to the Employee:

Please read the following section, then answer the study questions at the end of this section.

TRANSMISSION OF INFECTIOUS DISEASES

I. THE INFECTION CYCLE

Infections occur as a result of a cycle of events. The five components of the infection cycle are:

- A. **Susceptible host** - For microorganisms to continue to exist and cause disease and infection, they must find a source that will accept them. Susceptibility is the degree of resistance the potential host has to the organism.
- B. **Port of entry** - The organism must find a way to enter the host in order to multiply and cause infection. The port of entry is usually, though not exclusively, the same as the exit route.
- C. **Methods of transmission** - The methods by which organisms are passed from one person, animal or object to another are through blood/body fluids, the respiratory and enteric tracts, direct contact and vertical transmission. The most common direct means of transmission is by the hands.
- D. **Reservoir** - The reservoir for growth and multiplication of microorganisms is the natural habitat of the organism. In the hospital, patients, visitors, nursing, medical staff, and other hospital personnel may serve as reservoirs.
- E. **Route of exit** - The exit is the point of escape of the organism from the reservoir. The organism cannot extend its influence unless it escapes from the reservoir by some means. There is a primary exit escape for each type of microorganism. Common routes of escape in humans are the respiratory, gastrointestinal, urinary tract, and breaks in the skin.

II. THE ETIOLOGIC AGENT

The extent to which any microorganism is capable of causing disease or infection is dependent upon factors such as the:

- A. Number of organisms
- B. Virulence and potency of the organisms
- C. Source of the organisms
- D. Ability of the organisms to enter the body
- E. Ability of the organisms to establish themselves within the body

III. ELEMENTS THAT AFFECT AN ORGANISM'S MULTIPLICATION AND GROWTH

- A. **Food supply** - All organisms need an adequate supply of nourishment in order to thrive.
- B. **Water** - Organisms multiply rapidly in a moist environment.
- C. **Oxygen** - Some organisms require oxygen (O_2) to live, while others do not. (Organisms which cause tetanus and gangrene do not require O_2).
- D. **Temperature** - Each class of organism has a temperature at which it thrives. Most organisms multiply and grow readily in a warm environment.
- E. **pH** (alkalinity or acidity of a medium) - Microorganisms are sensitive to pH changes. Solutions used for *terminal* and daily/routine cleaning will alter pH on various types of surfaces, decreasing the ability of organisms to grow. (Note: *Terminal cleaning* is the cleaning of a room and equipment after a patient has been discharged from the room).

F. **Light** - Microorganisms are inhibited or destroyed by ultraviolet light and usually thrive best in a dark environment.

IV. FACTORS INFLUENCING THE SUSCEPTIBILITY OF THE HOST

- A. **Stress** – Individuals whose stress levels are elevated and/or who have been exposed to stressors for long periods of time may have little energy left for coping with infection.
- B. **Nutritional status** – Individuals who are malnourished are more susceptible to infections.
- C. **Fatigue** – When an individual is tired, his/her immune system is suppressed.
- D. **Age** – During infancy and childhood and in the elderly, the immune system no longer functions as well as it did. These groups are more susceptible to infections.
- E. **Concomitant medical treatment** – Medical treatments such as chemotherapy, antibiotics, glucocorticosteroids (prednisone, prednisolone), and some non-steroidal anti-inflammatory drugs (Indocin) predispose individuals to infections.

V. EMPLOYEE WORK PRACTICES AND HEALTH

- A. Maintain personal health and cleanliness to protect self and patients (eg, handwashing, personal grooming and cleanliness, long hair contained/pulled back off of face, short clean fingernails).
- B. Healthcare workers with exudative lesions or weeping dermatitis should refrain from direct patient care and handling of patient-care equipment until the condition resolves. Employees with lesions or unexplained rash should go to Employee Health for evaluation.
- C. Use safe work practices and appropriate personal protective equipment (PPE).
- D. Report for annual health evaluation and TB surveillance per policy.

VI. STANDARD PRECAUTIONS

Standard Precautions. These precautions (formerly called Universal Precautions) are used for *all patients*, regardless of suspected or confirmed infection status.

Standard Precautions are based on the principle that all blood, body fluids, nonintact skin, secretions, excretions (except sweat), and mucous membranes may contain infectious agents. Standard Precautions include the use of proper hand hygiene before and after patient contact and the appropriate use of gloves, gowns, masks, and eye protection, depending on the anticipated exposure.

- A. Hand hygiene is one of the most important infection control measure for preventing healthcare-associated infections.

1. Hand washing hygiene

Hands should be washed with soap and water:

- a. Before and after contact with each patient and when visibly dirty, soiled or contaminated with blood or body fluids
- b. After caring for patients with *Clostridium difficile* (*C. difficile*) or *Bacillus anthracis* (*anthrax*)
- c. Before eating or handling food
- d. After using the restroom
- e. Before putting on gloves for patient care
- f. After the removal of gloves - if gloves are visibly soiled with blood or bodily fluids
- g. When handling patient equipment

- h. Before and after performing surgical procedures on patients

Soap and water hand hygiene technique:

- a. Wet hands with water
- b. Apply soap or antimicrobial product to hands
- c. Rub hands together vigorously for at least 15 seconds, covering all surfaces of the hands and fingers
- d. Rinse hands with running water and dry thoroughly with a disposable towel.
- e. Use towel to turn off the faucet (if applicable)

2. Alcohol-based hand rub hygiene

Guidelines developed by the Centers for Disease Control and Prevention (CDC) and infection control organizations recommend that healthcare workers use an alcohol-based hand rub (a gel, rinse, or foam) to routinely clean their hands between patient contacts, as long as hands are not visibly dirty.

An alcohol-based hand product may be used instead of soap and water in the following situations:

- a. Hands are not visibly soiled
- b. Before and after having direct contact with patient's **intact** skin
- c. Before donning gloves for inserting invasive devices (eg, central lines, urinary catheters, intravenous catheters) that do not require a surgical procedure
- d. After contact with mucous membranes or non-intact skin if hands are not visibly soiled
- e. If moving from a contaminated body site to a clean body site
- f. After touching equipment/furniture near the patient

Alcohol-based hand rub hygiene technique:

- a. Apply product to palm of one hand and rub hands together, covering all surfaces of hands and fingers until hands are dry
- b. Follow the manufacturer's recommendations regarding the volume of product to use
- c. **The use of hand rubs does not replace hand washing with soap and water.** To prevent the build up of emollients after repeated use of alcohol-based hand rub, washing with soap and water after 5-10 applications has been recommended by certain manufacturers.

- 3. Gloves must be worn when any of the following could occur: contact with blood or other potentially infectious materials (OPIM), mucous membranes, and non-intact skin.
 - a. Remove gloves at the conclusion of the activity
 - b. Do not wear the same pair of gloves when caring for more than one patient
 - c. Wash hands after removing gloves
- 4. Artificial fingernails and long natural fingernails are not permitted for those who have direct contact with patients (who touch the patient as part of their care or service), handle instruments or patient care equipment, or for those who have contact with food.
 - a. Artificial fingernail is defined as any material applied to the fingernail for the purpose of strengthening or lengthening nails (eg, tips, acrylic, porcelain, silk, jewelry, overlays, wraps, fillers, superglue, any appliques other than those made of nail polish, nail-piercing jewelry of any kind, etc.).
 - b. Natural nails must be clean, with tips less than 1/4 inch long.
 - c. Fingernail polish must be in good condition, free of chips and preferably clear in color.

B. Respiratory hygiene/cough etiquette in healthcare settings

To prevent the transmission of all respiratory infections in healthcare settings, including influenza, the following infection control measures should be implemented **at the first point of contact** with a potentially infected person.

1. Visual alerts
 - a. Post "Cover your Cough" posters: Emphasizes covering coughs and sneezes and hand cleaning.
 - b. Personal Protective Equipment: Posters are available that demonstrate the donning and removing personal protective equipment.
2. Respiratory hygiene/cough etiquette

The following measures to contain respiratory secretions are recommended for all individuals with symptoms of a respiratory infection.

 - a. Cover the nose and mouth when coughing or sneezing. Ensure the availability of tissues for patients, visitors, and staff.
 - b. Use tissues to contain respiratory secretions and dispose of them in the nearest waste receptacle after use.
 - c. Perform hand hygiene (eg, hand washing with non-antimicrobial soap and water, alcohol-based hand rub, or antiseptic hand wash) after having contact with respiratory secretions and contaminated objects/materials.
3. Masking and separation of persons with respiratory symptoms
 - a. During periods of increased respiratory infection activity, offer masks to persons who are coughing. Masks are used to contain respiratory secretions.
 - b. Encourage coughing patients to sit apart (at least three feet away, if possible) from others in common waiting areas.
4. Healthcare workers: precautions to minimize exposure to respiratory droplets
 - a. Healthcare personnel should wear a mask for close contact with coughing patients, such as when examining a patient with symptoms of a respiratory infection, particularly if fever is present.

VII. TRANSMISSION-BASED PRECAUTIONS

Transmission-based precautions are designed for patients documented or suspected to be infected with highly transmissible or epidemiologically important pathogens for which additional precautions beyond Standard Precautions are needed to prevent transmission in healthcare facilities. Transmission-based precautions are described as follows:

- A. **Airborne Precautions.** These precautions are used for pathogens that are transmitted by airborne route over relatively large distances (> 3 feet), such as tuberculosis, measles (measles virus), and chicken pox (varicella-zoster virus).

Patients in airborne precautions require rooms with negative air pressure. Employees visiting these patients require special respiratory protection (ie, N95 respirators).

- A. **Droplet Precautions.** These precautions are used for pathogens that are transmitted by small respiratory droplets that travel only over short distances (\leq 3 feet), such as influenza virus, adenovirus, rhinovirus, and *Neisseria meningitidis* (meningococcus).

Droplet precautions require that healthcare workers use masks such as N95 respirators when they are within 3 feet or less of a patient.

- B. **Contact Precautions.** These precautions are used for pathogens such as *Clostridium difficile*, MRSA and VRE that are transmitted via direct contact with an infected or colonized person.

Healthcare personnel caring for patients on contact precautions must wear a gown and gloves prior to any contact with the patient or his/her bedside environment.

Please refer to the *Harbor-UCLA Medical Center's Infection Control Manual* on each unit for information regarding:

- A. Care of the patient in isolation
 1. Type of isolation to be used for patients with various types of infections
 2. Isolation attire, room set-up, informing patient, checking isolation order
 3. Transportation of an isolation patient from one room (or unit) to another, post-mortem care for the patient in isolation
 4. Instructions to be given to visitors of patients in isolation
 5. Care of linen, dishes, charts, lab specimens, trash, and equipment used by the patient in isolation
- B. Daily and terminal cleaning of the isolation room on each unit

PLEASE COMPLETE THE STUDY QUESTIONS

TRANSMISSION OF INFECTIOUS DISEASES **Study Questions**

Select the best answer to each question. **DO NOT** write in the manual.

1. The **most common** method of transmitting diseases from one person to another is by way of:
 - a. Droplets
 - b. The hands
 - c. Air currents
 - d. Contaminated clothing
2. Factors likely to contribute to an individual getting an infection include:
 - a. Extremes of age
 - b. Poor nutritional status
 - c. Frequent periods of high stress levels
 - d. All of the above
3. Measures to prevent the spread of infection in the work area include:
 - a. Handwashing or use of alcohol-based hand rub before and after caring for patients
 - b. Teaching the patient to cover nose and mouth with tissue when coughing or sneezing
 - c. Eliminating artificial fingernails and maintaining short, clean, and natural nails for health care workers who have direct contact with patients
 - d. All of the above

4. All of the following are true about hand hygiene **EXCEPT**:
 - a. Natural nails must be clean, with tips less than $\frac{1}{4}$ inch long
 - b. Fingernail polish must be in good condition and free of chips
 - c. Artificial fingernails are permitted for those who have direct contact with patients, handle instruments or equipment that will be used directly on patients, or those who have contact with food
 - d. Artificial fingernails are not permitted for those who have direct contact with patients, handle instruments or equipment that will be used directly on patients, or those who have contact with food
5. Standard precautions should be used with:
 - a. All patients
 - b. Patient in a high-risk group
 - c. Patient in a surgery care setting
 - d. Patient with known blood borne infections

Answers to Study Questions

1. b 2. d 3. d 4. c 5. a

If you answered all of the questions correctly, go on to the next section. If you missed one or more, read the content again and repeat the study guide questions.

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BLOODBORNE PATHOGENS AND HEALTHCARE WORKERS

Objectives:

Upon completion of this section, the employee will be able to:

1. Identify the location of the *Bloodborne Pathogen Exposure Control Plan* in his/her unit
2. Identify the three primary bloodborne pathogens that are of concern to the healthcare worker
3. Identify sources of bloodborne pathogens
4. Indicate which bloodborne pathogen infection can be prevented by a vaccine
5. Discuss the selection, use and removal of personal protective equipment (PPE)
6. Describe the containment and decontamination process for a visible body fluid spill in a patient-care area
7. Explain the procedure to follow when sharps/needlestick injury or mucous membrane exposure occurs

Instructions to the Employee:

Please read the following section, then answer the study questions at the end of this section.

BLOODBORNE PATHOGENS AND HEALTHCARE WORKERS

I. PURPOSE

A. The *Bloodborne Pathogen Exposure Control Plan* describes measures (policies, procedures, work practices, special equipment) to eliminate or minimize employee occupational exposure to blood or other fluids that comply with Cal/OSHA Bloodborne Pathogen Standard, CCR-Title 8 §5193.¹

II. EMPLOYEE RESPONSIBILITY

A. OSHA Bloodborne Pathogen Standards cover **all** employees who as a result of performing their job duties can reasonably anticipate contact with blood and other potentially infectious materials (OPIM).

B. Employees are required to adhere to these standards. Disciplinary action may result if an employee does not comply.

C. Occupational exposure is determined by the employee's category and its department and task specific. Refer to the *Bloodborne Pathogen Exposure Control Plan*.

III. BLOODBORNE PATHOGENS - DEFINITION

A. Bloodborne pathogens (BBP) are pathogenic microorganisms present in blood or body fluids which can cause disease in humans. Hepatitis B virus (HBV), hepatitis C virus (HCV) and human immunodeficiency virus (HIV) are the primary BBP of concern to the healthcare worker.

B. These infections can be transmitted to the healthcare worker by accidental exposure through breaks in the skin, punctures, wounds or mucous membranes (eg, eyes, mouth). BBP may be found in blood or other potentially infectious material (OPIM) and the following body fluids:

1. Semen
2. Vaginal secretions
3. Cerebrospinal fluid
4. Synovial fluid
5. Pleural fluid
6. Pericardial fluid
7. Amniotic fluid
8. Saliva in dental procedures
9. Breast milk
10. Any other body fluid that is visibly contaminated with blood (eg, urine)
11. Fluids where it is difficult or impossible to differentiate between body fluids

C. Bloodborne pathogens may also be found in medical waste and sharps.

1. Medical waste includes liquid or semi-liquid blood or OPIM, contaminated items that contain liquid or semi-liquid blood, contaminated sharps, pathological or microbiological wastes containing blood.

2. Sharps include any object that can be reasonably anticipated to penetrate the skin or other body part that may result in exposure. Examples of sharps include needle devices, scalpels, lancets, broken glass, broken capillary tubes, exposed ends of dental wires, dental knives, drills and burs.
3. BBP may be found on contaminated work surfaces.

IV. HEPATITIS B AND C (HBV and HCV)

- A. Description: HBV and HCV are viral infections of the liver.
- B. Transmission
 1. Transmission of HBV and HCV occurs primarily after exposure to blood or body fluids from persons who have acute or chronic HBV/HCV infections.
 2. HBV and HCV are transmitted in four primary ways:
 - a. **Sexual contact** (eg, unprotected intercourse)
 - b. **Parenteral exposure** (eg, needle sharing, blood exposure, tattooing)
 - c. **Perinatal exposure** HBV and HCV may be transmitted from mother to fetus, however, HBV transmission is more common.
 - d. **Recipient of blood/blood products** Blood screening programs for HBV and HIV were initiated in spring 1986 in the U.S. (Some patients may have received transfusions in other countries where screening of blood is less stringent). Blood screening programs for HCV were initiated in 1991 in the U.S.
 3. The risk of transmission depends on the amount of virus present in the source blood, the amount of source blood involved in the exposure and the route of exposure.
- C. Complications: Both HBV and HCV can result in chronic liver disease, leading to liver cirrhosis, cancer and death.
- D. Incubation/Symptoms/Treatment
 1. The incubation period of HBV infection ranges from 45-180 days.
 2. The incubation period of HCV infection ranges from 2-24 weeks.
 3. Infection may range from no symptoms at all to flu-like symptoms (nausea, vomiting, fever).
 4. In adults, most acute HBV infections are self-limited. In those who develop chronic infection the HBV may severely damage the liver. Most acute HCV infections are silent. Unlike HBV, HCV infection becomes a chronic infection in 75% - 85% of affected individuals.²
 5. Currently, treatment for chronic HBV/HCV infection involves some form of interferon. Effectiveness of therapy varies. There is no proven cure for chronic HBV or HCV infection.
- E. Prevention
 1. HBV is preventable by the Hepatitis B vaccine.
 - a. The Centers for Disease Control (CDC) recommends the HBV vaccine for anyone frequently exposed to blood/body fluids.
 - b. OSHA mandates that all employees at high risk for Hepatitis B be offered the vaccine free of charge. The vaccine is available to employees through Employee Health.
 - c. A contraindication to Hepatitis B vaccine is hypersensitivity to yeast or any component of the vaccine.

- d. The vaccine must be administered in three injections over a six-month period of time to achieve maximum protection. A small percentage of individuals do not develop sufficient numbers of antibodies even after the series of three vaccines and may require additional injections.
2. Currently, there is no vaccine for Hepatitis C.

V. HUMAN IMMUNODEFICIENCY VIRUS (HIV)

A. Description

1. HIV attacks the body's immune system, eventually causing acquired immune deficiency syndrome (AIDS). It destroys the cellular immunity of infected individuals, leaving them susceptible to a variety of opportunistic infections.
2. A person infected with HIV may carry the virus without developing symptoms for years.

B. Transmission

1. HIV is transmitted in four primary ways:
 - a. **Sexual contact** (eg, unprotected intercourse with an HIV positive individual)
 - b. **Parenteral exposure** (eg, needle sharing, blood exposure, tattooing)
 - c. **Perinatal exposure** and transfer of HIV in breast milk
 - d. **Transfusion of blood products** (Blood screening programs were initiated in spring 1986 in the U.S. Some patients may have received transfusion in other countries where screening of blood is less stringent)
2. HIV is not transmitted by casual contact. Although the virus has been detected in a variety of body fluids, studies of persons living with HIV-infected family members who engaged in close interpersonal activities (eg, sharing meals, sharing toilets) have not demonstrated an increase in HIV transmission.

C. Incubation/Symptoms/Prevention/Treatment

1. The incubation period of symptomatic HIV infection (ie, virus) is variable, ranging from months to years.
2. If a significant exposure has occurred, HIV-specific antibodies usually appear 6 weeks to 4 months following exposure. Blood tests are used to confirm seroconversion.
3. Common symptoms that may occur 1-6 weeks after exposure include fever, rash, malaise, myalgias/arthralgias, headaches, night sweats, pharyngitis and lymphadenopathy.
4. There is no known cure for HIV infection. However, post exposure prophylaxis, if given early enough, may prevent seroconversion.

	Mode of Transmission	Health Care Worker Precautions	Infectious Disease Precautions	Vaccine Preventable
HIV	Secretion/Excretions <ul style="list-style-type: none"> • Sexual intercourse • Perinatal exposure • Blood products • Needle-stick injuries 	<ul style="list-style-type: none"> • Hand washing • Gloves • Eye protection if splashing or splattering expected • Gowns 	Standard Precautions	No
Hepatitis B	Secretion/Excretions <ul style="list-style-type: none"> • Blood products • Sexual intercourse • Sharing of drug needles • Needle-stick injuries • Hemodialysis • Acupuncture 	<ul style="list-style-type: none"> • Hand washing • Gloves • Eye protection if splashing or splattering expected • Gowns 	Standard Precautions	Yes
Hepatitis C	Percutaneous <ul style="list-style-type: none"> • Contaminated blood & plasma • Needle-stick injuries 	<ul style="list-style-type: none"> • Hand washing • Gloves • Eye protection if splashing or splattering expected • Gowns 	Standard Precautions	No

VI. IMPLEMENTATION OF THE BBP EXPOSURE CONTROL PLAN

A. Compliance

1. General

- a. Medical history and physical examination cannot identify all patients infected with HIV or other bloodborne pathogens.
- b. Standard Precautions is the use of blood and body fluid precautions when caring for **all** patients at **all** times.
- c. Standard Precautions will be observed by **all** employees to prevent contact with blood or other potentially infectious materials (OPIM). All blood is considered infectious regardless of the source individual.

B. Work practices

1. Wash hands following contact with blood, OPIM and/or contaminated work surfaces and after removal of gloves.
 - a. Wash with soap and water when hands are visibly soiled.
 - b. Waterless alcohol-based hand hygiene preparations are recommended as an adjunct for soap and water for routinely decontaminating hands when they are not visibly soiled.
2. Do not eat, drink, apply cosmetics or handle contact lenses in work areas where there is a reasonable likelihood of occupational exposure to blood or OPIM.
3. Do not store food and/or drinks in refrigerators, freezers, shelves, cabinets or counter tops where drugs, blood or OPIM are kept.
4. Do not mouth pipette or suction blood.
5. Handle specimens of blood or OPIM in such a way as to prevent leakage.
6. Do not use hands to pick up broken glassware that may be contaminated. (Use mechanical means, such as brush and dust pan, tongs or forceps.)

7. Do not open, empty or place hands into sharps containers.

C. Personal Protective Equipment (PPE)

1. Each employee will use PPE during all procedures to minimize exposure to blood or OPIM.
2. PPE is located either in a cart or cabinet and is clearly marked "Personal Protective Equipment."
3. PPE is worn **only for the purpose of preventing exposure to blood or OPIM.** Gowns are not worn for personal comfort.
4. All PPE will be removed prior to leaving the work area (eg, patient room, laboratory, or other immediate areas where procedures are performed). PPE is **NOT** to be worn at the desk. Remove PPE prior to leaving operative or procedural areas.
5. PPE will be placed in the appropriate container for disposal.
6. Specific requirements for PPE use:
 - a. Gloves are to be worn when there is a possibility of direct contact with blood, OPIM, mucous membranes, and broken skin; when performing vascular access procedures; and when handling or touching contaminated items or surfaces.
 - b. Disposable gloves must be replaced when torn or contaminated. DO NOT wash or decontaminate for reuse. Wash hands after removing gloves.
 - c. Masks in combination with eye protection devices or chin length face shields must be worn whenever there is potential for blood or OPIM splashing into the face.
 - d. Protective, fluid-resistant disposable gowns, aprons and shoe covers/boots (selected areas) are worn when there is the possibility of exposure to body fluids.

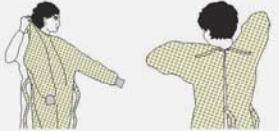


SEQUENCE FOR DONNING PERSONAL PROTECTIVE EQUIPMENT (PPE)

The type of PPE used will vary based on the level of precautions required; e.g., Standard and Contact, Droplet or Airborne Infection Isolation.

1. GOWN

- Fully cover torso from neck to knees, arms to end of wrists, and wrap around the back
- Fasten in back of neck and waist



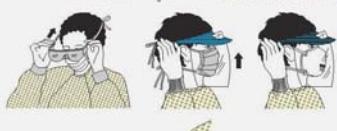
2. MASK OR RESPIRATOR

- Secure ties or elastic bands at middle of head and neck
- Fit flexible band to nose bridge
- Fit snug to face and below chin
- Fit-check respirator



3. GOGGLES OR FACE SHIELD

- Place over face and eyes and adjust to fit



4. GLOVES

- Extend to cover wrist of isolation gown



SECUENCIA PARA PONERSE EL EQUIPO DE PROTECCIÓN PERSONAL (PPE)

El tipo de PPE que se debe utilizar depende del nivel de precaución que sea necesario; por ejemplo, equipo Estándar y de Contacto o de Aislamiento de infecciones transportadas por gotas o por aire.

1. BATA

- Cubra con la bata todo el torso desde el cuello hasta las rodillas, los brazos hasta la muñeca y doblela alrededor de la espalda
- Átesela por detrás a la altura del cuello y la cintura

2. MÁSCARA O RESPIRADOR

- Asegúrese los cordones o la banda elástica en la mitad de la cabeza y en el cuello
- Ajústese la banda flexible en el puente de la nariz
- Acomódesela en la cara y por debajo del mentón
- Verifique el ajuste del respirador

3. GAFAS PROTECTORAS O CARETAS

- Colóquelas sobre la cara y los ojos y ajustela

4. GUANTES

- Extienda los guantes para que cubran la parte del puño en la bata de aislamiento

USE SAFE WORK PRACTICES TO PROTECT YOURSELF AND LIMIT THE SPREAD OF CONTAMINATION

- Keep hands away from face
- Limit surfaces touched
- Change gloves when torn or heavily contaminated
- Perform hand hygiene

UTILICE PRÁCTICAS DE TRABAJO SEGURAS PARA PROTEGERSE USTED MISMO Y LIMITAR LA PROPAGACIÓN DE LA CONTAMINACIÓN

- Mantenga las manos alejadas de la cara
- Límite el contacto con superficies
- Cambie los guantes si se rompen o están demasiado contaminados
- Realice la higiene de las manos

SEQUENCE FOR REMOVING PERSONAL PROTECTIVE EQUIPMENT (PPE)

Except for respirator, remove PPE at doorway or in anteroom. Remove respirator after leaving patient room and closing door.

1. GLOVES

- Outside of gloves is contaminated!
- Grasp outside of glove with opposite gloved hand; peel off
- Hold removed glove in gloved hand
- Slide fingers of ungloved hand under remaining glove at wrist
- Peel glove off over first glove
- Discard gloves in waste container



2. GOGGLES OR FACE SHIELD

- Outside of goggles or face shield is contaminated!
- To remove, handle by head band or ear pieces
- Place in designated receptacle for reprocessing or in waste container



3. GOWN

- Gown front and sleeves are contaminated!
- Unfasten ties
- Pull away from neck and shoulders, touching inside of gown only
- Turn gown inside out
- Fold or roll into a bundle and discard



4. MASK OR RESPIRATOR

- Front of mask/respirator is contaminated — DO NOT TOUCH!
- Grasp bottom, then top ties or elastics and remove
- Discard in waste container



SECUENCIA PARA QUITARSE EL EQUIPO DE PROTECCIÓN PERSONAL (PPE)

Con la excepción del respirador, quite el PPE en la entrada de la puerta o en la antesala. Quite el respirador después de salir de la habitación del paciente y cerrar la puerta.

1. GUANTES

- ¡El exterior de los guantes está contaminado!
- Agarre la parte exterior del guante con la mano opuesta en la que todavía tiene puesto el guante y quíteselo
- Sostenga el guante que se quitó con la mano enguantada
- Deslice los dedos de la mano sin guante por debajo del otro guante que no se ha quitado todavía a la altura de la muñeca
- Quite el guante de manera que acabe cubriendo el primer guante
- Arroje los guantes en el recipiente de deshechos

2. GAFAS PROTECTORAS O CARETA

- ¡El exterior de las gafas protectoras o de la careta está contaminado!
- Para quitárselas, tómelas por la parte de la banda de la cabeza o de las piezas de las orejas
- Colóquelas en el recipiente designado para reprocessar materiales o de materiales de deshecho

3. BATA

- ¡La parte delantera de la bata y las mangas están contaminadas!
- Desate los cordones
- Tocando solamente el interior de la bata, pásela por encima del cuello y de los hombros
- Voltee la bata al revés
- Dóblela o enróllala y deséchela

4. MÁSCARA O RESPIRADOR

- La parte delantera de la máscara o respirador está contaminada — ¡NO LA TOQUE!
- Primero agarre la parte de abajo, luego los cordones o banda elástica de arriba y por último quite la máscara o respirador
- Arríjela en el recipiente de deshechos

PERFORM HAND HYGIENE IMMEDIATELY AFTER REMOVING ALL PPE

EFFECTÚE LA HIGIENE DE LAS MANOS INMEDIATAMENTE DESPUÉS DE QUITARSE CUALQUIER EQUIPO DE PROTECCIÓN PERSONAL



D. Handling and transporting specimens of blood or OPIM

1. Specimens of blood or body fluids are placed in a leak-proof container, placed in a plastic bag to prevent spillage during transport and handling to the laboratory.
2. Specimens to be transported out of the hospital are placed in a leak-proof container clearly marked with a “Biohazard” label.

E. Containment and decontamination of blood or other body fluid spills

1. The method of containing and decontaminating blood and body fluid spills involves the use of an absorbent disinfectant which absorbs and transforms the fluid into an easily handled semi-solid. Gloves must be worn during the clean-up process.

Clean up-procedure:

- a. Don disposable gloves.
- b. Sprinkle absorbent powder over spilled blood and body fluids until completely covered, and liquid is absorbed and becomes semi-solid.
- c. Remove gloves, discard, and wash hands.
- d. Call Environmental Services Supervisor or Office at ext. 3350. Environmental Services will remove the semi-solid material with a dust pan and whisk broom or spatula, dispose of it in a red bag and remove from the unit.
- e. Clean and disinfect the contaminated area with a hospital grade germicidal detergent.
- f. After disposing of waste properly, wash hands thoroughly.

2. An absorbent powder is used to treat liquid medical waste in suction canisters by sanitization and solidification. Properly labeled treated waste is then disposed of in a red bag and sent to the autoclave on the loading dock for sterilization before final disposal.

F. Work environment

1. All employees are responsible to help keep the facility clean and safe.
2. Environmental Services is responsible for the routine cleaning of the facility, final cleanup of a medical waste spill and replacing and locking sharps containers. A written schedule for cleaning work sites and methods of decontamination will be followed by Environmental Services.
3. All solutions used for cleaning/disinfecting equipment/surfaces are to be approved by the Infection Control Committee prior to its purchase.
4. Surfaces and equipment contaminated with blood or body fluids are cleaned with a detergent solution followed by a disinfectant spray. DO NOT “flood” the area, as this may spread the contamination. Appropriate PPE must be worn to clean the area.
5. Handle soiled linen as little as possible. Place soiled or contaminated linen in a blue plastic bag. Do not separate or double bag linen.

G. Communication of hazards

1. Refrigerators and freezers containing blood or OPIM will be labeled with a biohazard label.
2. All equipment used to process blood specimens or body tissue will be labeled with a biohazard label.
3. Containers used for the transport of blood, body tissues, or blood products will be red in color and labeled with either a biohazard sign or specific to its contents.

VII. REQUIREMENTS FOR HANDLING SHARPS

A. Sharps Injury Protection (SIP) Program

1. There are policies and procedures in place designed to provide a safe environment for patients and workers. The BBP Exposure Control Plan is a guideline for departments to use to prevent or minimize exposure to infectious diseases. The SIP Program, a component of the BBP plan, describes requirements for:
 - a. Identifying staff, procedures, and devices with greatest risk of exposure to bloodborne pathogens
 - b. Training and education of staff using new safety devices or work practices
 - c. Evaluating and using safer devices
2. Departments and employees should take an active role in selecting safety devices, particularly devices that are unique or for specialized procedures.
3. Employees must be aware of the specific safety devices being used in their department.

B. Effective sharps handling techniques

1. All procedures involving the use of sharps in connection with patient care (eg, withdrawing body fluids, accessing a vein or artery, or administering vaccines, medications or fluids) shall be performed using effective handling techniques and other methods designed to minimize the risk of a sharps injury.
2. Policies and procedures identify work practices that describe effective techniques and other methods designed to minimize the risk of sharps injuries.

C. Disposal of sharps

1. Use/activation of safety device: safety devices (eg, shielded winged needle, sliding needle guard, snap-over needle guard) must be activated before disposal in the sharps container. Sixty two percent of all reported needlestick injuries are associated with hollow-bore needles such as hypodermic, winged-steel, IV stylet, and phlebotomy needles.²
2. In the absence of a “built-in” safety device, the needle is to be protected by the red Point-Lok device prior to disposal. **The safety feature or Point-Lok must be used for all needles.** (Ten percent to 25% of needlestick injuries occur when recapping a used needle.)²
3. Never bend, recap, or shear **contaminated** needles and sharps. The only exceptions are if:
 - a. Required by specific medical procedure (such procedures must be identified by the department and specific instructions given to the employee as to the possibility of exposure to blood or other infectious material)
 - b. It is done through the use of a mechanical device or one-handed technique
 - c. No alternative is available
4. Immediately after use, place disposable sharps in a puncture resistant, leak-proof sharps container. Sharps containers are picked up by the Environmental Services staff and replaced when three fourths full. **Never overfill a sharps container.** For service between regular pickups, call the Environmental Services supervisor.

VIII. NEEDLELESS SYSTEMS

California Legislation AB1208 requires healthcare institutions to use engineering controls that include sharps prevention technology, including but not limited to needleless systems and needles with

engineered sharps injury protection.³ Engineered sharps protection consists of physical attributes built into a device that reduces the risk of an exposure injury. Examples include barrier creation, blunting, encapsulation, withdrawal, or other mechanisms.

- A. Injury from sharps can occur any time a needle or other sharp device is used. Approximately 38% of sharp injuries occur **during** use and 42% occur **after use and before** disposal.²
- B. Whenever possible a needleless system is to be used for withdrawing blood from indwelling catheters, administering medication into IV lines, and for any other procedures with the potential for an exposure incident.
- C. Engineered safety devices (eg, safety needles, blood-transfer device) will be used for phlebotomy.
- D. Use only approved attachments/devices for vascular access devices.

IX. PROCEDURE TO FOLLOW WHEN SHARPS INJURY/NEEDLESTICK OR MUCOUS MEMBRANE EXPOSURE OCCURS

Consult the *Bloodborne Pathogen Exposure Control Plan Policy No.435* in Harbor-UCLA Medical Center's *Hospital and Medical Administration Policy and Procedure Manual* for complete information.

- A. Wash/flush the exposed area immediately.
- B. Notify supervisor.
- C. Report to Employee Health immediately (or Emergency Department if Employee Health is closed).
- D. Fill out an industrial accident report.

X. POST EXPOSURE EVALUATION AND PROPHYLAXIS

- A. Workers who sustain needlestick/sharps injuries or other bloodborne pathogen exposure must receive a confidential post-exposure medical evaluation and follow-up immediately (**within 2 hours**) after the exposure incident.
- B. Initial evaluation:
 1. The route of exposure and circumstances under which incident occurred are documented
 2. The source individual is identified and documented
 3. The source individual's blood will be tested as soon as possible after consent is obtained to determine HBV, HCV, HIV and syphilis infectivity. If consent is not obtained from the source individual, the employer shall establish that legally required consent cannot be obtained.
 4. Testing will not be done if consent is not given or if the HBV, HCV, or HIV status is known.
 5. Results of the source individual's testing is made known to the exposed employee. The employee is informed as to required confidentiality regarding the source individual's identity and infectious status.
 6. The employee's blood may be tested for HBV, HCV, and HIV as soon as feasible after consent is obtained. If employee consents to baseline blood collection, but not to HIV testing, the employee's blood sample is preserved for 90 days. During those 90 days, the employee may elect to have his/her blood tested.

- C. Post exposure prophylaxis is provided when medically indicated. If treatment is recommended, it should be instituted as soon as possible. Employee Health will provide drugs and the employee will be issued the medication at no charge.
- D. Counseling is available to the exposed employee.

PLEASE COMPLETE THE STUDY QUESTIONS

BLOODBORNE PATHOGENS AND HEALTHCARE WORKERS
Study Questions

Select the best answer to each question. **DO NOT** write in the manual.

1. The three bloodborne pathogens of primary concern to healthcare workers are:
 - a. *Salmonella*, hepatitis B, tuberculosis
 - b. Tuberculosis, hepatitis B, hepatitis C
 - c. Hepatitis B, hepatitis C, human immunodeficiency virus
 - d. Hepatitis B, human immunodeficiency virus, tuberculosis
2. The most common chronic bloodborne infection in the United States is:
 - a. Hepatitis A
 - b. Hepatitis C
 - c. *Salmonella*
 - d. Tuberculosis
3. Which of the following can be prevented by a vaccine?
 - a. HIV
 - b. Hepatitis B
 - c. Hepatitis C
 - d. Tuberculosis
4. Hepatitis B may be transmitted by:
 - a. Sharing meals
 - b. Casual contact
 - c. Sharing toilets
 - d. Needle-stick injuries
5. The major effect that HIV has on the immune system is:
 - a. It destroys the cellular immunity
 - b. It increases the red blood cell count
 - c. It increases the white blood cell count
 - d. None of the above

6. HIV may be transmitted by:
 - a. Sharing meals
 - b. Sharing toilets
 - c. Casual contact
 - d. Exchanging body fluids
7. The *Bloodborne Pathogen Exposure Control Plan* can be found in the:
 - a. Red unit specific *Specialty Manual*
 - b. Harbor-UCLA Medical Center's *Emergency Preparedness Manual*
 - c. Yellow Harbor-UCLA Medical Center's *Nursing Department Policy Manual*
 - d. White Harbor-UCLA Medical Center's *Hospital and Medical Administration Policy and Procedure Manual*
8. Bloodborne pathogens may be transmitted by all of the following **EXCEPT**:
 - a. Sharps
 - b. Exhaled air
 - c. Medical waste
 - d. Saliva in dental procedures
9. Personal protective equipment should be worn:
 - a. For personal comfort
 - b. When answering the unit telephone
 - c. When charting outside the patient's room
 - d. When there is possibility of exposure to body fluids
10. The process of decontaminating a body fluid spill includes all of the following **EXCEPT**:
 - a. Wearing gloves
 - b. Pouring bleach onto spilled material
 - c. Sprinkling absorbent powder over spilled material
 - d. Sweeping up treated material and disposing into red bag
11. When touching contaminated surfaces, which type of PPE should be worn?
 - a. Gloves
 - b. Goggles
 - c. Gloves and mask
 - d. Goggles and mask
12. Which of the following is true about safe handling of sharps?
 - a. A contaminated needle should be recapped prior to discarding it
 - b. The safety device does not need to be activated on needles used to mix medications
 - c. Needles without a "built in" safety device must be protected by the Point-Lok before disposal
 - d. The safety device does not need to be activated if the needle is "clean" (has not entered a patient)

CHECK YOUR ANSWERS TO THE STUDY QUESTIONS ON THE NEXT PAGE

BLOODBORNE PATHOGENS AND HEALTHCARE WORKERS

Answers to Study Questions

1. c	2. b	3. b	4. d	5. a	6. d	7. d
8. b	9. d	10. b	11. a	12. c		

If you answered all of the questions correctly, go on to the next section. If you missed one or more, read the content again and repeat the study guide questions.

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2. NIOSH Alert: Preventing Needlestick Injuries in Healthcare Settings. <http://www.cdc.gov/niosh>. Accessed June 22, 2010.
3. Migden C. Occupational Safety and Health: Bloodborne Pathogen Standard, A.B. No. 1208; September 30, 1998. http://www.leginfo.ca.gov/pub/97-98/bill/asm/ab_1201-1250/ab_1208-cfa-19980829_031302_asm_floor.html. Accessed June 22 2010.

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TUBERCULOSIS

Objectives:

Upon completion of this section, the employee will be able to:

1. Identify the route of tuberculosis transmission
2. Describe the symptoms of tuberculosis disease
3. Identify individuals at increased risk of developing tuberculosis
4. Differentiate between tuberculosis infection and tuberculosis disease
5. Describe the treatment of tuberculosis
6. Describe the strategies for preventing tuberculosis transmission in the workplace

Instructions to the Employee:

Please read the following section, then answer the study questions at the end of this section.

TUBERCULOSIS

I. DEFINITION

- A. Tuberculosis (TB) is a communicable disease caused by the bacterium *Mycobacterium tuberculosis* (*MTB*). TB is spread from person-to-person by airborne particles called droplet nuclei.
 - 1. Droplet nuclei containing *Mycobacterium tuberculosis* are produced when a person with TB disease of the lungs or larynx coughs, sneezes, speaks, sings, or breathes.
 - 2. Droplet nuclei remain airborne indefinitely or until removed by natural or mechanical ventilation.

II. TRANSMISSION

- A. Transmission may occur when a person inhales air containing the droplet nuclei.
 - 1. The risk of transmission depends primarily on the degree of infectiousness of the person with TB disease (source), duration of exposure, state of health of the person inhaling the droplet nuclei, and characteristics of the environment in which exposure occurred.
 - 2. TB is not spread on dishes, drinking glasses, or other objects.

III. TB INFECTION VERSUS TB DISEASE

- A. TB **infection** is caused by the multiplication of *Mycobacterium tuberculosis* in the alveoli of the lung.
 - 1. Persons with TB infection have no symptoms, have a negative chest x-ray, and are not contagious.
 - 2. Persons with TB infection usually have a positive reaction to the purified protein derivative (PPD) tuberculin skin test.
 - 3. Treatment at this point can prevent TB from developing into active disease.
- B. TB **disease** occurs when all of the mycobacteria are not destroyed or the body's immune system fails and the bacteria continue to spread and begin to destroy lung tissue.
 - 1. Two to ten weeks after the initial TB infection, the body's immunologic response usually prevents the development of TB disease.
 - 2. Approximately 5% of **untreated** infected persons will develop TB disease within the first 2 years after infection. Another 5% will develop TB disease later in life.¹
 - 3. The lungs are usually the first part of the body exposed to the *Mycobacterium tuberculosis* and are the primary areas where TB occurs. TB can be spread to other organs through the lymph system and the blood vessels.
 - 4. Persons with TB disease can pass TB germs to others.
 - 5. Untreated TB disease can cause serious illness and death.
 - 6. Certain medical conditions increase the risk of progression from TB infection to TB disease. These conditions include:
 - a. Human immunodeficiency virus (HIV)
 - b. Diabetes
 - c. Chronic malnutrition (eg, alcoholics, IV drug users)
 - d. Immunosuppression due to long-term corticosteroids or chemotherapy

IV. EPIDEMIOLOGY AND POPULATIONS AT RISK

- A. According to the World Health Organization (WHO), TB kills approximately 2 million people each year and 5,000 people a day.² Currently, there are 2 billion people worldwide infected with the TB bacillus. In the United States, during 2004 there was a nationwide 3.3% decline from 2001 in the number of TB cases reported to CDC. Los Angeles County (LAC) was still the county with the highest number of TB cases in California for the year 2003. It accounted for 29.4% of the TB cases in California (3,230 cases provisional data) and 6.4% of the TB cases in the United States. However, during 2003, there were 949 TB cases confirmed in LAC, representing a 7.4% decrease in TB cases from 2002. Similar to the whole nation, this was the eleventh year of decline since 1992.³
- B. Anyone can get tuberculosis. Tuberculosis, however, is more prevalent in certain subsets of the population, such as persons born in countries with a high incidence of tuberculosis (eg, Hispanics, Asian/Pacific Islanders). Certain living conditions also place an individual at higher risk of infection such as crowding, poor lighting, poor ventilation, homelessness, and long-term care facilities. Other conditions that place people at risk for TB include HIV infection, immunosuppression (corticosteroid use or chemotherapy), chronic malnutrition (alcoholics and intravenous drug users), and caring for persons in high-risk groups.

V. SYMPTOMS OF TB DISEASE

- A. The symptoms of pulmonary tuberculosis make it difficult to differentiate between TB and other diseases. Typical symptoms include: malaise, weakness, night sweats, anorexia, fever, lymphadenopathy, weight loss, chronic cough, and hemoptysis (coughing up blood). All symptoms do not occur in every case and some may be symptoms of other lung diseases.

VI. SCREENING

- A. In most cases, a PPD skin test can identify a person infected with the tuberculosis bacteria. PPD skin tests must be administered, read, and documented by Employee Health or their designee. The result of the PPD test should be read at 48-72 hours after administration. A positive reaction can detect infection within 2-10 weeks after the exposure. For the general public, a PPD skin test is only performed if the person has symptoms or has been exposed to someone with tuberculosis disease. People who work in healthcare or schools have this test performed yearly or more often if they work in a high risk area.
- B. Interpretation of Mantoux tuberculin skin test results
 - 1. A reaction of 5 mm or more of induration should be considered positive if the individual meets any of the following criteria: has had close contact with an infectious case of TB, has a chest x-ray consistent with TB, is immunosuppressed, is infected with HIV, or is a member of a group at high risk for HIV infection.
 - 2. A reaction of 10 mm or more of induration should be considered positive in all other persons.
 - a. Persons having a newly positive mantoux as defined above must have a chest x-ray. A positive PPD test does not necessarily mean that the person has tuberculosis. A follow-up chest X-ray is required to assess pulmonary status. If the person has a positive PPD skin test and positive chest x-ray findings, a sputum specimen will be collected and sent to the lab for acid-fast bacillus smears and culture to confirm the diagnosis of tuberculosis. The employee may not work until the results of the sputum diagnostic test(s) are confirmed.

3. Appropriate measures to prevent spread of infection are implemented (discussed in Sections VIII and IX). At Harbor-UCLA Medical Center, employees are monitored by Employee Health. All employees must have a pre-employment physical, which includes a two-step PPD tuberculin skin test and a chest x-ray. Employees are followed annually thereafter or after any suspected exposure. OSHA requires that employees who work in high risk areas be tested every six months. Increased TB surveillance is required for Healthcare Workers (HCW) who have close, prolonged contact with patients at higher risk of TB or perform cough inducing procedures. Each department identifies employees with occupational risk. Employees should discuss their confidential personal risk factors with Employee Health.

VII. TREATMENT OF TB

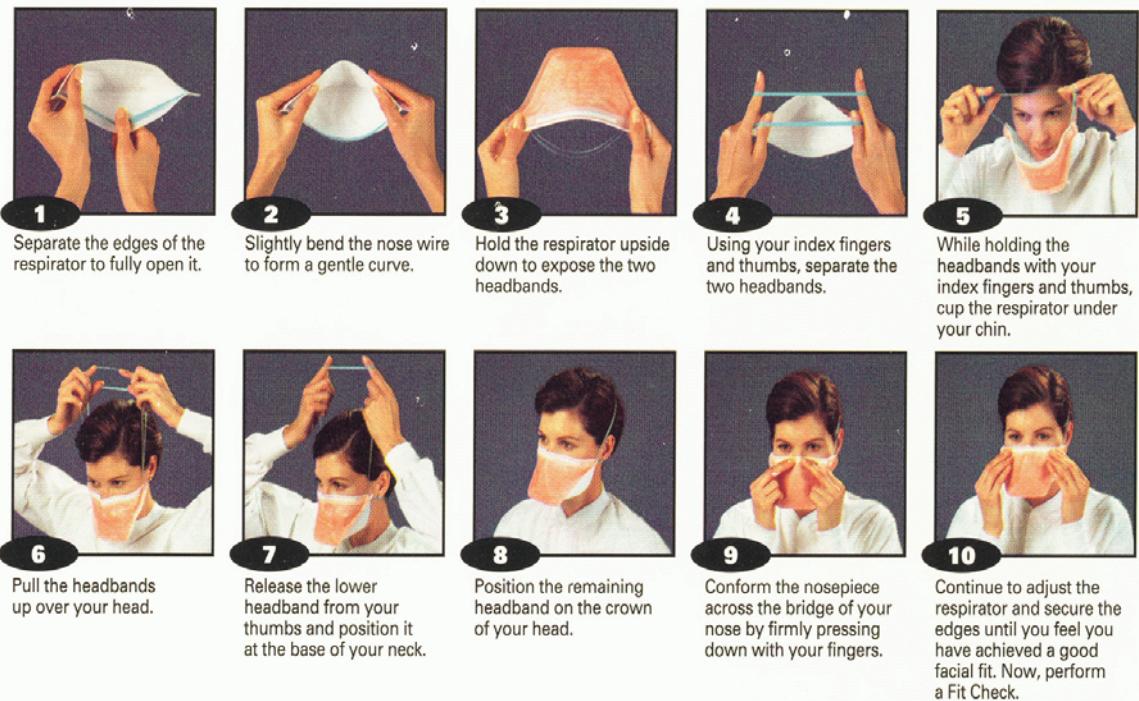
- A. For adults and children who do not display signs of the active disease (have a negative chest x-ray), but have recently tested positive with a PPD skin test, preventive therapy with isoniazid is given for 6-12 months to decrease the risk of TB. Such persons may continue to work during this time.
- B. Once a person is found to have signs and symptoms consistent with tuberculosis treatment is begun. The person may not work until a physician certifies that the disease is no longer communicable. Treatment for active disease should always include two or more tuberculosis medications to prevent the emergence of resistant tuberculosis bacilli. Multidrug-resistant tuberculosis can occur in two ways:
- C. Infection by tuberculosis bacteria that is already resistant to the drugs
- D. Patient non-compliance or mismanaged treatment, where the patient takes inadequate types or doses of appropriate medication
- E. Treatment for multi-drug resistant TB disease or exposure to multidrug-resistant TB is determined on an individual case basis.

VIII. PREVENTING TRANSMISSION OF TB IN THE WORKPLACE

- A. Patients with known or suspected active TB are to be placed in a negative pressure room and have an airborne precautions sign posted on the door.
 1. Patients and families must be educated about the need for airborne precautions and their responsibility to adhere to the precautions. Patient education booklets are available on each unit.
 2. Patients must remain in their rooms except as necessary to leave for diagnostic tests or with permission, to go outside. They are not permitted free access to the wards, lobbies, clinics, other patient rooms or cafeteria, and must wear a mask anywhere in the facility outside their isolation room.
 3. When leaving their rooms for diagnostic tests, patients must be escorted and must wear properly applied masks.

N95 Particulate Filter Respirator and Surgical Mask

Directions for Application



4. When in an airborne precaution room, healthcare workers must wear a N-95 respirator. In order for the respirator to be effective, it must filter out particles as small as one micron. The respirator must be "fit tested" to the employee and must be refit tested per OSHA Regulations (currently annually). The N-95 respirator used at Harbor-UCLA is disposable and should be used only once. Patients and visitors wearing a mask are not required to be fit tested. Apply a respirator before entering the room. Remove the respirator **OUTSIDE** the room. **Remember -- "Don't share the air!"**
5. The door to the respiratory isolation room is to be kept **COMPLETELY** closed at all times -- even if the patient is temporarily out of the room. This is the only way to reduce aerosol escape and to prevent microbial contamination of the air outside the isolation area.

B. Negative pressure isolation rooms

1. Negative pressure isolation rooms have directional airflow devices which contain a pink ball in a tube, and the ball moves back and forth, depending on the direction of the airflow between the room and the corridor. Staff entering the room should check the directional airflow prior to entering a room in use for airborne precautions.
 - a. If the pink ball is on the outside of the room, it means the air is flowing from the patient's room into the corridor (ie, positive pressure).
 - b. If the pink ball is on the inside of the room, the air is flowing from the corridor into the patient's room (ie, negative pressure).
2. Patients placed in airborne precautions require negative pressure rooms (ie, pink ball should be inside the room), thus preventing potentially contaminated air from the patient's room from flowing out into the corridor. The door to the room must be kept closed and properly posted with an airborne precaution sign.

- a. If the door to the room is closed, and the pink ball remains on the outside of the room, the room is not suitable for airborne precautions. Please notify the Charge Nurse and the Facilities Management that the room needs service, and notify Bed Control that the room is not available until checked and cleared by the Facilities Management.
- b. If the room is occupied by a patient who requires airborne precautions, the patient must be moved to another negative pressure isolation room and notify Infection Control at ext. 3838. Mask the patient during transport.

C. TB patients may **not** be grouped together (cohorted) in a shared room.

D. Discontinuation of airborne precautions:

1. A patient isolated for **suspected** TB should be isolated until an alternative diagnosis is established or the patient has had 3 consecutive negative sputum AFB smears collected on different days.
2. For patients with TB, airborne precautions may be discontinued when the patient has met the following criteria: on effective therapy, is improving clinically, and has had three consecutive negative AFB sputum smears collected on different days.
 - a. Because drug susceptibility results are not usually known when the decision to discontinue isolation is made, all TB patients should remain in isolation while hospitalized until they have had three consecutive negative AFB sputum smears collected on different days and they demonstrate clinical improvement.
 - b. For HIV positive patients with suspected pulmonary TB or for multidrugresistant TB (MDR-TB), consult the Pulmonary Services for medical management and discontinuation of isolation. More AFB smears may be required.

E. In general, infants do not require airborne precautions because they rarely aerosolize droplet nuclei and their bronchial secretions contain few acid-fast bacilli as compared to adults with pulmonary TB. However, each case must be evaluated on an individual basis (eg, age of child, symptoms).

F. If the patient being admitted is a child, the family/household contacts accompanying the child will be asked to wear a mask until they have been ruled out for TB by their healthcare provider or the Health Department. The family/household contacts must wear the mask at all times while inside the hospital.

IX. FACTORS FOR REDUCING TUBERCULOSIS TRANSMISSION

- A. **Early identification:** Early identification is a key to early, appropriate airborne precautions. Be aware of signs and symptoms, and communicate with physicians.
- B. **Appropriate isolation and adequate ventilation:** Airborne precaution rooms **must** provide negative pressure in relation to the hallway.
 1. The room should also have an exhaust system that allows the air in the room to be vented to the outside and not be recirculated. There should be a minimum of six air exchanges per hour.
 2. Rooms without proper air control should not be used for patients with TB. In addition, the door must be kept closed at all times even if the patient temporarily leaves the room. A list of approved negative pressure rooms is posted in the Emergency Department and in each ward.
 3. In settings where a negative pressure room is not available, patients with suspected TB should wear a mask and be placed in a room apart from other patients and visitors. Post an airborne precaution sign on the door and keep the door closed.
- C. **Ultraviolet light:** Ultraviolet light (UV) has been shown to kill the tuberculosis bacteria. These UV lights may be used as an adjunct to respiratory isolation precautions and should never be considered a replacement for adequate ventilation and negative pressure.

D. **Masking the mouth and nose of the patient:** Covering the mouth and nose reduces the chance of secretions and bacteria from becoming airborne. Patients need to wear a mask only when leaving their isolation room.

E. **Initiation of chemotherapy:** Effective chemotherapy reduces coughing, the amount of secretions, and the number of organisms in the sputum. When a patient is receiving chemotherapy as part of his/her TB treatment, the nurse must ensure that the patient takes his/her anti-TB medications as well.

F. **Further patient teaching:**

1. Inform patients to stay in their rooms, keeping the doors closed at all times.
2. Instruct patients to cover their mouth/nose and cough or sneeze into tissues.
3. Instruct visitors about the importance of wearing a mask properly when in a patient's room.
4. Educate patients on the importance of following the drug therapy, airborne precautions, and the need to continue to see their physician.
5. Make efforts to decrease the patient's feelings of anxiety and social isolation associated with the implementation of airborne precautions.
6. Document patient and visitor education in the medical record.

G. Regular TB surveillance in employees (refer to TB Control Policy for more detailed information).

1. Employees receive pre-employment screening for TB disease. All employees are required to be screened at least annually thereafter.
2. TB surveillance:
 - a. For employees with a history of negative PPD skin test, a skin test is placed annually. Employees working in high risk areas will be skin tested every 6 months (see TB Control Policy for more detailed information).
 - b. Employees with a history of positive PPD skin test will be screened for signs and symptoms annually, or every 6 months if working in a high risk areas.
 - c. Employees with a history of negative PPD skin test who convert to positive after hire, or those with signs or symptoms of possible TB will receive further follow-up to ensure employee is free of communicable diseases (chest x-ray, exposure history, symptom review, etc.).
 - d. In the event of a diagnosis of active TB in a patient (or employee) where there may have been unprotected exposure to other employees, every attempt is made to identify employees that may have been exposed. Employee Health will notify these employees and conduct post exposure follow-up per policy.
 - e. Please note: TB surveillance and post exposure follow-up is conducted by Employee Health. Self-testing is not allowed.

X. REPORTING

By law, healthcare providers are required to provide written notification for all TB cases and suspected TB to LAC DHS TB Control. At Harbor-UCLA, the current method of notification is to call the TB Liaison Nurse (310-222-3443). Any patient placed in airborne precautions and worked up for TB constitutes a TB suspect and must be reported. In addition to phone notification to the TB liaison, there is a case report form that must be completed by the physician and placed on the chart.

XI. DISCHARGE

By law, the physician must notify the TB Control Liaison prior to the patient's discharge or transfer and there must be a written treatment plan approved by the health officer prior to discharge. LA County TB Control requires that this notification occurs at least 24 hours prior to anticipated discharge. At Harbor-UCLA, the TB Control Liaison (310-222-3443) is responsible for approval of discharged/transferred TB patients or suspects.

PLEASE COMPLETE THE STUDY QUESTIONS ON THE NEXT PAGE

TUBERCULOSIS
Study Questions

Select the best answer to each question. **DO NOT** write in the manual.

1. Tuberculosis is transmitted through:
 - a. Airborne particles
 - b. Parenteral exposure
 - c. Ingestion of contaminated food
 - d. Direct contact with infected person
2. All of the following are typical symptoms of tuberculosis **EXCEPT**:
 - a. Fever
 - b. Cough
 - c. Malaise
 - d. Weight gain
3. Which of the following persons is at a higher risk of developing TB disease than the general population?
 - a. Person born in Alaska
 - b. Person who is well nourished
 - c. Person on long-term corticosteroid use
 - d. Person who lives in an uncrowded and well ventilated home
4. An asymptomatic healthcare worker has a positive PPD skin test and a negative chest x-ray. This person probably has:
 - a. No TB
 - b. TB disease
 - c. TB infection
 - d. TB of the skin
5. A hospitalized patient with suspected pulmonary TB can be removed from airborne precautions when:
 - a. The patient reports feeling better
 - b. The patient's blood culture results are negative
 - c. Isoniazid and rifampin have been administered for 5 days
 - d. The patient is on effective therapy, improving clinically and has had three consecutive negative AFB sputum smears collected on different days
6. When in the room of a patient with active tuberculosis, which of the following **MUST** be worn?
 - a. Gloves
 - b. Mask, goggles and gloves at all times
 - c. N-95 respirator even if patient is absent from room
 - d. Gown and goggles when in contact with the patient
7. When leaving an airborne precaution isolation room, the respirator must be removed and discarded:
 - a. Outside the patient's room
 - b. Prior to leaving the patient's room
 - c. Once the patient is deemed noninfectious
 - d. After contact with the patient is completed

CHECK YOUR ANSWERS TO THE STUDY QUESTIONS ON THE NEXT PAGE

TUBERCULOSIS

Answers to Study Questions

1. a 2. d 3. c 4. c 5. d 6. c 7. a

If you answered all of the questions correctly, go on to the next section. If you missed one or more, read the content again and repeat the study guide questions.

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ELECTRICAL/UTILITY SAFETY

Objectives:

Upon completion of this section, the employee will be able to:

1. List five factors contributing to electrical sensitivity
2. Identify three types of patients who are electrically sensitive
3. Describe how electrical safety is maintained in this hospital
4. Identify how to check electrical equipment prior to use
5. Report an electrical safety incident

Instructions to the Employee:

Please read the following section, then answer the study questions at the end of this section.

ELECTRICAL SAFETY

I. INTRODUCTION

- A. Everyone involved in direct patient care must be familiar with the safe use of electricity and the potential harm it can cause to patients and staff.
- B. All electrical equipment has a very small amount of current leakage which cannot be eliminated. Touching the metal surfaces of a piece of electrical equipment causes electric current to flow through the body. Low electrical current flow cannot be felt and usually causes no bodily harm. However, injury can occur if the individual is electrically sensitive. Electrically sensitive individuals are those who have catheters, tubes, wet or broken skin, surgical wounds, fevers, and/or pressure sores.
- C. Since current leakage cannot be completely eliminated from electrical equipment, hospitals must decide on the maximum allowable limits in its different areas. At Harbor-UCLA, the maximum current leakage allowance in patient care areas is 300 microamperes.

II. FACTORS WHICH CONTRIBUTE TO ELECTRICAL INJURY

Three factors may contribute to electrical injury: skin condition, atmospheric conditions, and electrical leakage from equipment.

A. Skin condition

Skin provides insulation from the harmful effects of the environment including electrical currents. When the skin is dry and intact, an individual is less sensitive to electricity and; therefore, is less likely to receive an electrical shock. Conditions that may contribute to electric shock include:

- 1. Wet and/or broken skin
- 2. Pressure sores
- 3. Surgical wounds
- 4. Presence of catheters or drainage tubes
- 5. Presence of an external pacemaker wire
- 6. Perspiration or excessive diaphoresis

B. Atmospheric conditions

On a cool, cloudy day and when an individual is not perspiring, he or she is less sensitive to electricity. On a hot, humid day and when the individual is perspiring, he or she is more sensitive to electricity; therefore, his/her chances of electrical injury are greater.

C. Condition of equipment

- 1. Electrical equipment must be maintained in good working condition in order to keep the current leakage at or below the 300 microamperes standard of our hospital.
- 2. All new medical electrical/electronic equipment used in patient care areas is checked by the Bio-Med Electronics Department to make sure that the current leakage is below 300 microamperes.
- 3. Patients and staff are protected from excessive current leakage by the use of the third prong on the power plug. Therefore, equipment used in patient care areas must have a three-pronged plug.
- 4. Never use an extension cord or any equipment with only 2 prongs on its plug.

III. HOW ELECTRICAL SAFETY IS MAINTAINED AT HARBOR-UCLA

- A. Multiple pieces of electrically operated equipment used for a single patient should be plugged into the same cluster of wall outlets. This will allow for better grounding.
 - 1. Electrical and electronic equipment are checked at regular time intervals depending on the device. At the time of inspection, the Bio-Med Department places a sticker on the equipment indicating preventative maintenance has been performed on the equipment and the unit is safe to use on a patient.
 - 2. Notify the Facilities Management at ext. 3301 for any equipment displaying a date **beyond** the due date on the sticker.
 - 3. Defibrillators that were put into service within the last 5 years are tested for output accuracy every 6 months, and defibrillators that have been in service for more than 5 years are tested on a 4 month cycle by the Bio-Med Department.
 - 4. Red outlets are emergency outlets that should be used for life support equipment. Equipment, which is considered life support, such as defibrillators, ventilators, balloon pumps, heart bypass pumps, etc. Critical medical equipment without battery backup also should be plugged into the red emergency outlets. A cardiac bedside monitor would be considered a critical medical equipment.

IV. MEASURES WHICH SHOULD BE EMPLOYED BEFORE USING ANY PIECE OF ELECTRICAL EQUIPMENT

Before using any piece of electrical equipment, always check:

- A. General appearance of the equipment
 - 1. Check body of the equipment for cracks, holes, protruding wires, etc.
 - 2. Cord condition
 - a. Check for intact insulation (check for cracks, breaks, etc.).
 - b. Check for the presence and condition of the ground (third prong on plug), if applicable.
 - c. Assess the intactness of plug (plastic portion).
 - d. Ensure that the cord fits the outlet and the fit is snug.
 - 3. Check the on/off switch for proper function. The switch must work 100% of the time. Never compromise this standard.
- B. Other points to remember
 - 1. Keep long cords coiled and out of the way of traffic.
 - 2. To ensure that equipment with rechargeable batteries remains operational, keep it plugged in at all times even when not in use.
 - 3. Never use any electrical equipment if:
 - a. The cord or plug feels warm
 - b. Any suspicious odors are coming from equipment
 - c. Equipment operates erratically
 - 4. One must never attempt to repair electrical equipment.

5. To report equipment in need of repair, or to report a mechanical emergency: call ext. 3301 Monday-Friday, 0730-1600 (On county observed holidays and at all other times, call ext. 3326).
6. When working in patient rooms, never touch the patient and the equipment at the same time since one's body can act as a conductor of electricity from the equipment to the patient. One may not feel the shock because one may be less sensitive to electricity than the patient. However, the patient may be more electrically sensitive because of wet skin, pressure sores, and/or catheters.

C. Observe the following when working with defibrillators:

1. Direct all personnel to "Stand Clear" of the bed and any equipment in contact with the patient prior to the discharge of the electrical energy from the defibrillator.
2. Remove any excess conductive gel or moisture from the chest wall prior to the release of a charge of joules to help prevent arcing.
3. Remove nitroglycerin paste or patches from the chest to help prevent arcing.
4. Remove oxygen from the immediate environment to prevent spontaneous combustion.
5. Personnel who have acquired any moisture or gel on their hands, while performing chest compressions, must not operate the defibrillator.

D. Observe the following when working with external pacemaker wires and/or box:

1. Keep external pacemaker wires covered with gloves and/or inside suction tubing to provide some form of insulation.
2. Never touch pacemaker wires or enclosure with wet hands.
3. Instruct patients not to shower while external pacemaker wires are in place. Patients should also be instructed never to touch the television and/or other electrical equipment while the external pacemaker wires are in place.

E. To remove a patient from a cardiorespiratory monitor:

1. Disconnect monitor cable from monitor OR remove electrodes from patient
2. Do not disconnect the electrodes from the monitor cable. Placing tape over the connection between the electrode lead wire and the monitor cable is a good reminder to not disconnect at this junction



Important: **Any time** a patient in contact with electrical or mechanical equipment complains of feeling an electrical tingling, shock or burn, immediately assess the patient and disconnect/replace the equipment. Then notify the physician, Facilities Management, the Nurse Manager, and complete a Situation Report.

UTILITY SAFETY

Each staff member must be able to answer the following questions. (For further clarification or information consult the *Hospital Administration Policy and Procedure Manual* and/or the *Hospital Fire Manual*.)

Q: Who would you notify if there is a mechanical emergency, or if you have a piece of equipment in need of repair?

A: Call Mechanical at ext. 3301, 3302, or 3303 - Monday thru Friday from 0730-1600 (on County observed Holidays and at all other times, Call ext. 3326).

Q: Do you know when and why to use a red emergency outlet?

A: While all the outlets are supported by the emergency generators, the RED outlets will be the last ones to lose power if the generators have difficulty. These RED emergency outlets can be used at all times; however, their use should be restricted to life support equipment (eg, ventilators, balloon pumps). Some medication rooms have red emergency outlets available. Use this outlet for the medication refrigerator to prevent critical medications from perishing when the refrigerator becomes inoperable during a power outage.

Q: What would you do if you were in an elevator, the elevator stopped and the door did not open? What would you do if there was a patient in the elevator?

A: In the event that an elevator stops and the doors do not open, follow the instructions below:

1. Check if the emergency stop button has been pulled out. If it is pulled out, push it in and the elevator should start to run.
2. If the emergency stop button is not pulled out and the elevator still does not operate, use the telephone (in the panel under the control board) to notify the operator. Give the operator the number of the elevator in which you are located (posted above the control panel).
3. If there is a patient in the elevator, check the patient's condition, treat if necessary, and then follow the procedure in step two.

Q: Where are the medical gas valves located in your area? Who is authorized to shut off medical gas valves?

A: Refer to the list on the following page for medical gas valve locations. Only Clinical Staff or the Facilities Management and/or the Fire Department, with the guidance of clinical staff, are authorized to shut off this medical gas valve.

MEDICAL GAS VALVE LOCATIONS

<u>AREA SERVED</u>	<u>LOCATION OF VALVE</u>
8E Heart Station	8E 27 Corridor
7W Ward	Wall opposite 7W Nurse Station
7E Labor Rooms and Nurseries	Wall opposite 7E Nurse Station
7E Delivery Suites	Corridor of each suite
7E Nursery #1	Corridor of the room
7E Nursery #2	Corridor of the room
6W/ICU Ward	Wall opposite 6W Nurse Station
6E Ward/ICU/NICU	Wall opposite 6E Nurse Station
5W Ward	Wall opposite 5W Nurse Station
5E Ward/ICU/GCRC	Wall opposite 5E Nurse Station
4W Ward/CCU	Wall opposite 4W Nurse Station
4E Ward	Wall opposite 4E Nurse Station
3W Ward	Wall opposite 3W Nurse Station
3W Isolation rooms #7 & #8	“C” Bay, near isolation room #7
3W ICU/CTU	3W-32B Corridor
3E Ward	Wall opposite 3E Nurse Station
2E Surgery Suites	Corridor outside of each suite
2E Monitor Room	2E-35 Corridor
2E PACU	Inside the PACU near bed #6
2W-10, and Peds ER	2W-R8 Corridor
2W-41 Radiology	2W-41 Corridor
2B-8 Urology Clinic	2B-8 Corridor
2B-9 Urology Clinic	2B-9 Corridor
2B-7 Urology Clinic	2B-7 Corridor
2B-6 Urology Clinic	2B-6 Corridor
2B-10 Urology Clinic	2B-10 Corridor
2F-7 ENT Clinic	2F-8 - Corridor
2G-9 Eye Clinic	2F-8 - Corridor
1B-2, 1F-3, 1F-13 Peds Clinic	2F-10 Corridor
1 st floor Peds ER	1G-7 Corridor
1A-6 Dental Clinic	1A-6A Corridor
1 st floor ER, RX 1&2, 1K-4, 1J-5, 1J-6	Inside main room near the North automatic door
1 st floor CT Scan	1H-6 Corridor
Respiratory Therapy & B-217 CT Scan	B-253 Corridor
Nuclear Medicine & Ultrasound	B-152 Corridor
B-200	B-200 Corridor (not in use at this time)
	B-151 Corridor
<u>HOSPITAL Main Oxygen Shutoff</u>	
PCDC Endoscopy Laboratory	2 nd floor 207-4 Corridor
PCDC OSSA - outpatient recovery	2 nd floor 201 Corridor
PCDC Vascular Catheterization Laboratory	2 nd floor 202-15 Corridor
PCDC Cardiac Catheterization Laboratory	2 nd floor 202-21 Corridor
PCDC Pulmonary Function and Exercise Lab	2 nd floor 204-3 Corridor
PCDC Urgent Care exam rooms	1 st floor 102-1 Corridor
PCDC Cardiology suite corridor	1 st floor 107-2 Corridor
PCDC Module “C”	Basement B06-7 Corridor
PCDC Module “B”	Basement B02-10 Corridor
PCDC Module “A”	Basement B01-10 Corridor
PCDC Main Shutoff	B-05 Corridor

PLEASE COMPLETE THE STUDY QUESTIONS ON THE NEXT PAGE

ELECTRICAL/UTILITY SAFETY

Study Questions

Select the best answer to each question. **DO NOT** write in the manual.

1. Which of the following conditions make patients more electrically sensitive?
 - a. Wet skin
 - b. Pressure sores
 - c. Presence of catheters
 - d. All of the above
2. When multiple pieces of electrical equipment are being used for a patient, ensure better grounding by:
 - a. Testing the equipment for current leakage
 - b. Plugging equipment into the same cluster of wall outlets
 - c. Wrapping long, cracked cords around the body of all equipment
 - d. Checking that a current mechanical sticker is on each piece of equipment
3. All life support equipment in use should be plugged into:
 - a. Any outlet
 - b. The red outlets
 - c. The blue outlets
 - d. None of the above
4. In which of the following conditions should a power cord **NOT** be used?
 - a. A missing ground prong
 - b. Cracked plastic portion of the plug
 - c. A break in the insulation of the cord
 - d. All of the above
5. A patient reports that she just felt a strange tingling through her body when she touched her siderail. An appropriate action is to:
 - a. Unplug the bed and try inserting plug in another outlet
 - b. Ignore the complaint and wait and see if she complains again
 - c. Report this to administration, Facilities Management, skin care team, physician, and complete a Situation Report
 - d. Disconnect/remove/replace the equipment, report this to the physician, Facilities Management, Nurse Manager, and then complete a Situation Report

CHECK YOUR ANSWERS TO THE STUDY QUESTIONS ON THE NEXT PAGE

ELECTRICAL/UTILITY SAFETY

Answers to Study Questions

1. d 2. b 3. b 4. d 5. d

If you answered all of the questions correctly, go on to the next section. If you missed one or more, read the content again and repeat the study guide questions.

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FIRE/LIFE SAFETY

Objectives:

Upon completion of this section, the employee will be able to:

1. Identify the fire rating of commonly used doors in the hospital
2. Describe the correct course of action when a fire is discovered in the work area
3. Describe the location of the closest fire alarm box in the work area
4. State the extension to call to report a fire
5. Identify the priority movement plan for patients when evacuation off the ward is necessary
6. Describe the 3 elements that must be present to create a fire
7. Identify the proper extinguishers for the following types of fire:
 - a. Wood, paper, and bedding
 - b. Electrical wiring and equipment
 - c. Chemicals and burning liquids
8. Explain the steps of the PASS method of extinguisher use

Instructions to the Employee:

Please read the following section, then answer the study questions at the end of the section.

FIRE/LIFE SAFETY

I. INTRODUCTION

Because fire can occur anywhere, each employee must familiarize him/herself with hospital policies and procedures pertaining to fire safety. If a fire does occur in the hospital, every effort must be made to confine it.

An employee must perform fire prevention measures, and in the event of a fire emergency, institute fire/life safety procedures in a calm manner to allay fear and panic of patients and visitors. An effective fire prevention program and a well-rehearsed fire emergency plan will ensure hospital fire safety.

II. SMOKING POLICY

- A. Smoking is prohibited in all indoor areas of Harbor-UCLA Medical Center and buildings occupied by the Los Angeles Biomedical Research Institute and the Medical Foundation. This policy covers **all** individuals within the boundaries of Harbor-UCLA Medical Center.
- B. Smoking is permitted outdoors, but not within 20 feet of entrances.
- C. All individuals on hospital premises must follow the smoking policy. Employees and volunteers must enforce the smoking policy with all fellow employees, volunteers, patients and visitors.

III. PROCEDURE TO FOLLOW WHEN A FIRE OCCURS IN AREAS OCCUPIED BY PATIENTS (Please refer to *Fire Manual* for more explicit instructions).

Follow the RACE response: Remove, Alarm, Contain, Extinguish

- A. **Remove**: Remove all persons from immediate danger.
- B. **Alarm**: Activate the nearest fire alarm box (pull station) to summon the fire department. Fire engines will arrive at the hospital within minutes of alarm activation.

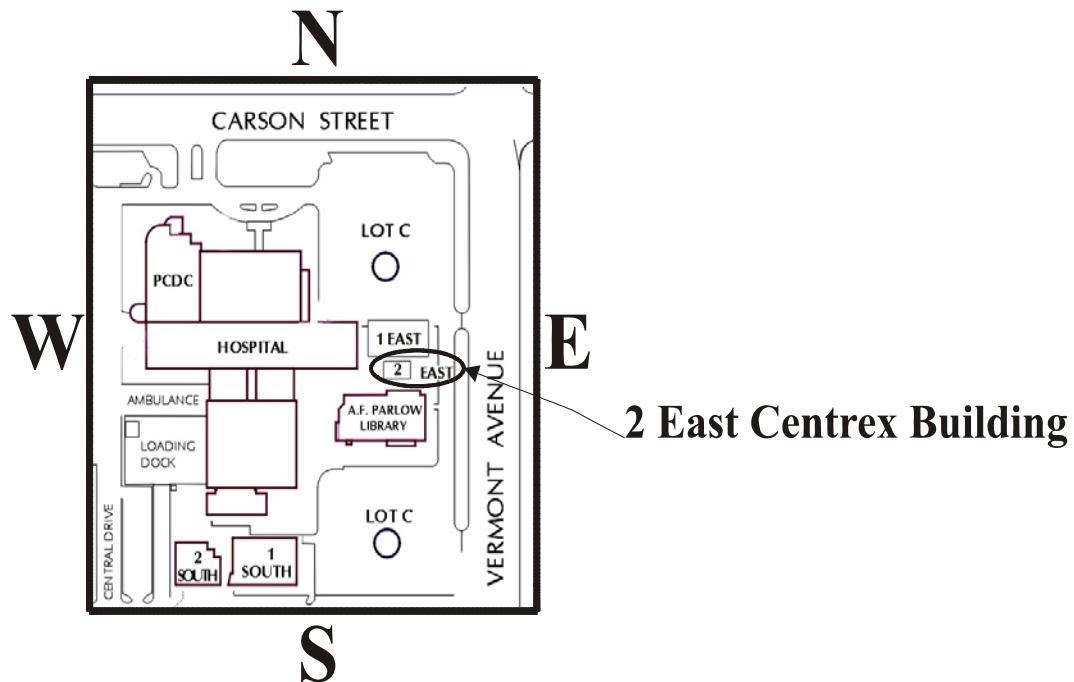
Dial ext. 113 to state the location of the fire.

The operator will then announce the location of the fire on the overhead paging system. All employees are to return to their unit immediately.

Send a messenger to the Centrex Building (Building 2 East, Telecommunications) if a power failure has blocked the alarm and/or telephone systems [Building 2 East is located next to the Parlow Library (see map on following page)]. The messenger should use the telephone at the east side entrance of the Centrex Building to dial "O" or ext. 113 and the operator inside the building will respond. If appropriate, the messenger should return to the work area and assist co-workers as needed.

- C. **Contain** fire using appropriate fire fighting method. Close all doors and clear all corridors. See section VIII.
- D. **Extinguish** the fire (when safe to do so).

MAP SHOWING LOCATION OF BUILDING 2E CENTREX BUILDING



IV. FIRE RATING INFORMATION

A. Doors

The fire rating of a door refers to the period of time that the door is capable of preventing the transmission of fire. For example, if the fire is in a patient's room, closing the door will provide twenty minutes of protection from the fire spreading to another area. If the fire is outside the patient's room, the reverse is then true, the door will provide twenty minutes of protection. Many of the door assemblies are labeled with their fire ratings. The rating includes the door and the frame.

Door	Fire Rating
Corridor doors, including patient room doors	20 minutes
Staircase doors	1½ hours
Doors to linen and trash chute rooms	1½ hours
Metal doors of laundry and trash chutes	1½ hours
Cross corridor doors marked "BARRIER DOOR, DO NOT BLOCK"	20 minutes
Exterior doors marked "EMERGENCY EXIT"	Not rated--provide exit to area of safe refuge

B. Floors

The fire rating of the flooring is four hours. Four hours of protection is provided for the floor above the level of the fire.

V. EVACUATION OF PATIENTS

A. Evacuation Pre-requisites

1. A determination by Medical or Nursing staff, Hospital Administrator (designee), Administrative Nurse on Duty (designee) or public safety officer (firefighter or Sheriff's deputy) that patient care cannot safely continue.
2. Authorization to evacuate can **only** be given by the Hospital Administrator (designee, including HICS officers), the Administrative Nurse on Duty (designee) or a public safety officer.
3. Identification of safe evacuation routes and evacuation methods

B. Types of Evacuation

1. **Partial evacuation:** Patients are transferred within the hospital. There are two levels of a partial response:
 - a. Horizontal evacuation: Individuals move, or are moved, from one smoke compartment, beyond a set of barrier doors, to another smoke compartment on the same floor to an area of safe refuge.
 - b. Vertical evacuation: Individuals move, or are moved, up or down staircases and out of the building to an area of safe refuge.
2. **Full evacuation:** Patients are transferred to other hospitals or health-care facilities, and/or are discharged home
 - a. Evacuate the building from the top down. Evacuation at lower levels can be accelerated easily if the danger increases rapidly.

C. Evacuation Sequence

Evacuate the most hazardous areas first, those closest to danger or farthest from a safe exit. Patients shall be evacuated in the following order:

1. Patients in immediate danger
2. Ambulatory patients who need little or no assistance to walk and go down stairs.
3. Non-ambulatory/wheelchair patients
4. Non-ambulatory/special needs patients. This group includes patients who are bed-bound, bariatric, ventilator/oxygen dependent, on a legal hold, or require a transport monitor.

D. Evacuation Triage Status

In the case of vertical evacuation, to help plan for and resource the evacuation efforts, Nursing staff shall assess each patient's color-coded Evacuation Triage status:

1. **Green:** Ambulatory patients who need little or no assistance to walk and go downstairs
2. **Yellow:** Non-ambulatory/wheelchair patients
3. **Red:** Non-ambulatory/special needs patients

E. Evacuation Routes

1. Floors 3 through 8 are divided into three smoke compartments that are created by barrier doors. Each compartment has its own staircase.
2. The basement and floors 1 and 2 have more than three smoke compartments and exit staircases. See the floor plan posted in your area for evacuation routes and instructions.
3. **NEVER USE AN ELEVATOR DURING A FIRE.**

F. Evacuation Equipment

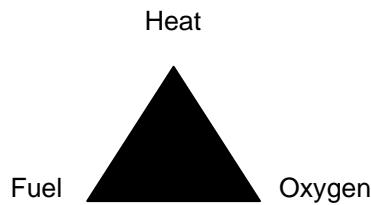
1. MedSleds: For vertical evacuation on non-ambulatory/wheelchair and non-ambulatory/special needs patients
2. Wheelchairs
3. Gurneys

G. Patient Preparation for vertical Evacuation of Inpatients

1. Assess the patient's color-coded Evacuation Triage Status
2. Place the appropriate colored Evacuation Triage Status tag on the patient's gown/shirt/dress
3. Tape the patient's ID card to his/her Kardex and staple the patient's Kardex to their gown
4. For vertical evacuation, secure non-ambulatory patient to MedSled

VI. FIRE SCIENCE

Three elements must be present to create a fire. These elements are:



This is known as the "fire triangle." To extinguish a fire, the triangle must be broken by eliminating **at least one** of the 3 elements. Portable fire extinguishers are designed and formulated to break up the fire triangle.

VII. CLASSES OF FIRES

- A. **Class A:** Combustibles such as wood, paper, trash, linens. These fires are deep burning. Use extinguishers that are marked either A (water) or ABC (dry powder).
- B. **Class B:** Chemicals such as burning liquids (eg, gasoline, paint, alcohol, cooking grease). Use extinguishers marked either BC (carbon dioxide) or ABC (dry powder). Do not use a water extinguisher for this class of fire as it will spread or splatter the fire.
- C. **Class C:** Electrical fires from burning motors, television sets, or monitors. Turn off electrical source if possible. Use extinguishers marked BC (carbon dioxide) or ABC (dry powder). NEVER use a water extinguisher because of the possibility of electrical shock.

VIII. HOW FIRE EXTINGUISHERS WORK

- A. Water extinguishers (A) remove heat from the fire triangle.
- B. Carbon dioxide extinguishers (BC) produce a fog that displaces available oxygen at the base of the fire. Carbon dioxide also cools the burning surface, thereby removing the element of heat.
- C. Dry powder extinguishers (ABC) form a chemical barrier between the fuel and oxygen elements of the fire triangle.

IX. FIRE FIGHTING EQUIPMENT

- A. Use the proper extinguisher for the type of fire you are trying to extinguish. (See table below)

<i>Type of Fire Extinguisher</i>	<i>Effective For These Types of Fires</i>
Class A or H ₂ O	Paper, wood or linen fires
Class BC or CO ₂	Chemical or electrical fires
Class ABC or Dry Chemical	All types of fires
Halon - ABC Rated	All types of fires
K-Type	Combustible cooking media (vegetable or animal oils and fats)

- B. Fire extinguisher operation

1. Although the operation of the majority of fire extinguishers is the same, there are exceptions. Read the instructions on the fire extinguisher to learn the individual variations.
2. Be sure that one has begun the RACE response:

R=Remove – all persons from immediate area
A=Alarm - pull the fire alarm station and call 1-1-3
C=Contain - close the doors
E=Extinguish - the fire

3. Stay between the fire and the exit. Do not let the fire block one's escape path in case it gets out of control.
4. Make sure one uses the correct type of fire extinguisher on the fire. A common error, which can be fatal, is using a water type fire extinguisher on a grease or electrical fire.

- C. Steps in the use of a fire extinguisher

Follow the PASS method: Pull, Aim, Squeeze, Sweep

1. Pull the pin out. Some extinguishers require release of a lock hatch, pressing a puncture lever or other motion.
2. Aim the extinguisher nozzle (horn or hose) at the base of the fire
3. Squeeze or press the handle
4. Sweep from side to side at the base until the fire goes out

D. Smothering a fire

A non-acrylic blanket can be used to smother some fires. Small fires in the bedding and on a person's clothing can usually be smothered with a blanket.

IMPORTANT:

- Always notify the fire department to remove a burned mattress, pillow, bedding or waste basket from the building as they may contain burning embers.
- Refer to the *Fire Manual* in the work area for more detailed information.

PLEASE COMPLETE THE STUDY QUESTIONS

FIRE/LIFE SAFETY
Study Questions

Select the best answer to each question. Please **DO NOT** write in the manual.

1. Doors between the corridors and patient rooms are capable of preventing the transmission of a fire for approximately:
 - a. 20 minutes
 - b. 60 minutes
 - c. 90 minutes
 - d. 120 minutes
2. According to the RACE response, the first thing that should be done when a fire occurs is to:
 - a. Notify the Unit Manager
 - b. Dial 113 for the page operator
 - c. Pull the nearest fire alarm box
 - d. Remove persons from immediate danger
3. The correct number to call to report a fire is:
 - a. 111
 - b. 112
 - c. 113
 - d. 114

4-7. Match the priority evacuation movement during a fire in Column A with the patient classifications in Column B:

Column A

First
Second
Third
Fourth

Column B

a. Bedridden patients
b. Wheelchair patient
c. Ambulatory patient
d. Patients closest to danger

8. The three elements that must be present to create a fire are:
 - a. Heat, fuel, grease
 - b. Heat, fuel, oxygen
 - c. Fuel, grease, paper
 - d. Fuel, burning liquid, heat
9. Which of the following extinguishers is effective on ALL types of fires?
 - a. D
 - b. AB
 - c. BC
 - d. ABC
10. The steps of the PASS method of fire extinguisher use are: **P**ull pin, **A**im extinguisher, **SS**weep side to side.
 - a. True
 - b. False

Answers to Study Questions

1. a 2. d 3. c 4. d 5. c 6. b 7. a 8. b 9. d
10. a

If you answered all of the questions correctly, go on to the next section. If you missed one or more, read the content again and repeat the study guide questions.

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EMERGENCY PREPAREDNESS

Objectives:

Upon completion of this section, the employee will be able to:

1. Discuss “Code Triage”
2. Describe the elements of the Hospital Emergency Incident Command System (HEICS)
3. List alternate forms of emergency communication
4. Identify the location of key emergency management stations
5. Describe his/her disaster-response role and responsibilities in a “Code Triage” incident
6. Identify potential bioterrorism syndromes and describe how to report the presence of patients suspected or known to have been victims of bioterrorism
7. Describe how to report the presence of patients suspected or known to have been exposed to hazardous chemical or radioactive materials

Instructions to the Employees:

Please read the following section, then answer the study questions at the end of this section.

EMERGENCY PREPAREDNESS

I. DEFINITIONS

- A. **Disaster:** Any situation or occurrence that is known – or is likely to affect 10 or more patients, and/or may exceed Harbor-UCLA’s ability to respond using standard operating procedures. Examples: earthquake, fire, power or water failure, bioterrorism, labor strikes, hazardous chemical or radioactive material exposure, plane crash, riot or other mass-casualty incident.
- B. **Emergency Preparedness Management Plan:** A preestablished disaster response plan designed to establish a safe environment, maximize continuity of patient care, minimize any loss of function, provide the best possible care for incoming casualties and enable Harbor-UCLA to act as a community resource in the event of a disaster.
- C. **Emergency Preparedness Manual:** A facility-wide manual that contains general and disaster specific mitigation, preparedness, response and recovery procedures.
- D. **“Code Triage”:** A code announced via the overhead paging system to notify staff that Harbor-UCLA is in a disaster response mode. A text and telephone page to key staff (ie Chairs, Service Directors, Nurse Managers).
- E. **Emergency Management Stations:** Predesignated locations on campus where staff carry out specific disaster-response functions during a “Code Triage” incident.

II. HOSPITAL INCIDENT COMMAND SYSTEM (HICS)

- A. **Command:** Responsible for overall management of disaster response and recovery, media relations, coordination with outside agencies, and maintaining safety.
- B. **Operations:** Responsible for providing medical and psychological direct patient care and ancillary support services; providing for management of utilities, security, and hazardous materials response.
- C. **Planning:** Responsible for collecting, evaluating and disseminating status reports and other pertinent information; tracking the movement of patients admitted to, relocated within, or discharged from the facility due to the disaster.
- D. **Logistics:** Responsible for ensuring communications, acquiring needed resources, managing the Labor Pool, providing for employee health and well being, and family care, and supporting other HICS functions.
- E. **Finance:** Responsible for tracking, seeking reimbursement for and paying costs associated with the hospital’s disaster response and recovery incidents.

III. EMERGENCY MANAGEMENT STATIONS

During a “Code Triage” incident, HICS officers and other Harbor-UCLA personnel use pre-designated emergency management stations to perform disaster response and recovery work. The key emergency management stations and their locations, unless otherwise designated, are as follows:

- A. **Command Post Staging Area:** Conference Room 1L-1, next to the Doctors Dining Room by the Ambulance Entrance.
- B. **Command Post:** Building 1-East (Surgery & Anesthesiology department offices)
- C. **Labor Pool:** Employee/Public Cafeteria. This is the labor pool for all non-physician personnel.
- D. **Physicians Labor Pool:** Resident’s Lounge (Room 1L-4), adjacent to the Doctors Dining Room.

E. **Mass-casualty Triage Area:** Ambulance Ramp.

IV. ALTERNATE COMMUNICATIONS

If a disaster disables Harbor-UCLA's phone system, the hospital can use the following alternate means of communication:

A. Internal communications

1. **Two-way radios:** Radios have been pre-deployed to all inpatient nursing units, the Nursing Service Office, the Centrex operator, and some ancillary departments. HICS officers receive these radios during a "Code Triage" incident.
2. **E-mail:** The Command Post e-mail address is HUCLACodeTriageCommandPost@dhs.lacounty.gov
3. **Runners:** Staff or volunteers delivering written messages. Runners MUST know where to deliver messages and how to get there.
4. **Cell phones:** Appropriate for small-scale incidents that only affect the hospital.

B. External communications

1. **HAM radios:** The most-reliable means of external disaster communications.
2. **ReddiNet:** A closed e-mail system that links County and private emergency rooms to the County's Emergency Medical Services Agency and each other.
3. **County-wide Integrated Radio System (CWIRS):** An 800 megahertz radio system that allows all County departments and their major facilities to communicate with each other and the County's Emergency Operations Center.
4. **Satellite radio/phone:** The hospital's SatRad system enables satellite-facilitated radio and phone communications.
5. **Payphones:** These phones are on a different system than the hospital's desk/wall phones. Pay phones may work when desk/wall phones do not function.
6. **E-mail.**

V. YOUR ROLE AND RESPONSABILITIES IN A "CODE TRIAGE" INCIDENT

A. **General responsibilities**

1. Return to your normally assigned work station.
2. Check in with your supervisor.
3. Await further instructions from your supervisor (designee) or a HICS officer.

B. **Nursing responsibilities**

1. Return to your normally assigned unit.
2. Check the status of your patients.
3. Ensure all life-critical equipment is plugged into a red plug (inpatient nurses).

4. Check in with your supervisor.
5. Identify your patients who could be safely discharged within the next 2 and 12 hours. Await further instructions from your supervisor (designee) or a HICS officer.

C. Physician responsibilities

1. Review the status of your assigned patients.
2. Identify any of your inpatients who could safely be discharged within the next 2, 12 and 24 hours.
3. Housestaff: Check in with your supervisor. Attending MDs and/or Senior Residents: Check in with your assigned housestaff.
4. Await further instructions from your Department Chair, Attending MD, Senior Resident, or a HICS officer.

D. Individuals with additional “Code Triage” responsibilities

1. Nurse Managers, Charge Nurses, Department Chairs, Service Directors or their designees: Submit a Code Triage Status Report form to the Command Post Staging Area (Conference Room 1L-1) as soon as possible after the “Code Triage” page. Use this form to report the loss of any critical systems, equipment, supplies, and the location of any trapped or injured individuals. This form is available on the Harbor intranet “Code Triage” link.
2. Staff with a pre-assigned HICS role: Report to the Command Post Staging Area (Conference Room 1L-1) as soon as possible after “Code Triage” notification. Exception: Emergency Department staff.

VI. INFORMATION NEEDED TO PERFORM DUTIES DURING A “CODE TRIAGE” INCIDENT

A. Where to find the Emergency Preparedness and Management Manual: On the Harbor intranet. Click on the “Code Triage” link.

B. How to obtain or replenish critical resources, including manpower:

1. Call the Command Post at ext. 2141.
2. Submit a written request to the Command Post Staging Area.
3. E-mail a request to the Command Post at:
HUCLACodeTriageCommandPost@dhs.lacounty.gov.

C. What to do if you are off duty and know a disaster has occurred:

1. Do NOT automatically report to work on your off-shift unless your department’s Emergency Management Plan so specifies. Plan on reporting for your next regularly scheduled shift.

And,

2. Wait to be contacted by your supervisor (designee).
3. Turn on a radio to KNX AM-1070. If telephones are inoperable, this radio station will broadcast call-back notifications.
4. Report to work if so directed by your supervisor (designee) or radio call-back notifications. Wear your hospital identification in order to cross police lines.

VII.EMERGENCY CONDITIONS & BASIC STAFF RESPONSE

A. One is expected to recognize and provide basic response to the following emergency conditions:

1. Cardiopulmonary arrest – adult (**Code Blue**)
2. Cardiopulmonary arrest – pediatric (**Code White**)
3. Bomb threat (**Code Gray**)
4. Assaultive Patient (**Code Green/Crisis Response Team**)
5. Hazardous materials spill or release (**Code Orange**)
6. Radioactive incident (**Code Orange**)
7. Infant/child abduction (**Code Pink**)
8. Fire (**Code Red**)
9. Emergency/disaster response (**Code Triage**)
10. Earthquake
11. Evacuation
12. Hostage situation
13. Unusual incident

The “**Emergency Conditions & Basic Staff Response**” poster (see following page) provides a description of each emergency condition, the appropriate phone extension to report the emergency condition, and a description of the basic initial, secondary, and follow-up responses to the emergency condition. The poster is displayed at each inpatient nurses’ station, outpatient clinic, and the office of each Department Chair and Service Director.

HARBOR-UCLA MEDICAL CENTER
EMERGENCY CONDITIONS & BASIC STAFF RESPONSE
(See Emergency Preparedness & Management Manual and Unit Policies for Additional Details)

Problem	Description	Initial Response	2ndary Response	Follow-Up
CARDIAC ARREST (Adult) Code Blue	An adult arrests in any area of the hospital. Adult Cardiac code team assistance is necessary.	Clinic area to address the needs of the patient first.	Call: Operator x112 for overhead Code Blue page if necessary. Report location.	Document occurrence in patient chart.
CARDIAC ARREST (Peds) Code White	A child/infant arrests in any area of the hospital. Pediatric Cardiac code team assistance is necessary.	Clinic area to address the needs of the patient first.	Call: Operator x112 for overhead Code White page if necessary. Report location.	Document occurrence in patient chart.
BOMB THREAT Code Gray	Notification that a bomb has been placed on campus. (Threat usually from outside caller.)	Don't hang up! Keep caller on the line by asking for as much information as possible about bomb's location, type, etc.	Have co-worker call: Operator x111. Report incident <i>Do NOT use cell phone!</i>	With assistance from County Police, visually search for bomb.
ASSAULTIVE PATIENT Code Green	A patient requires behavioral management. Crisis Response Team assistance is necessary.	Clinical staff attempt to redirect and de-escalate patient.	Call: Operator x111. Report Code Green emergency, location. Describe situation.	Document occurrence in patient chart.
HAZARDOUS MATERIALS Code Orange (Spill or Release)	<u>Incident Spill:</u> Small spill with no hazard to people or environment. <u>Emergency Spill:</u> Any spill hazardous to people/environment, or with unknown effects.	Trained user cleans spill with appropriate materials and personal protective equipment. Evacuate & deny entry to area. Call: HazMat Office x2835 or Operator x111. Notify your supervisor.	Appropriately dispose of materials. Seek decontamination & treatment for victims.	Complete report of the incident. Complete report of the incident.
RADIOACTIVE INCIDENT Code Orange	Unintended release of radioactive material.	Isolate the spill and evacuate. Deny entry. Call: Radiation Safety x2835 or Operator x111. Notify your supervisor.	Trained user cleans spill with appropriate materials and personal protective equipment; appropriately disposes of material.	Complete report of the incident.
INFANT/CHILD ABDUCTION Code Pink + Age	Infant or child is missing or known to be abducted. The number announced after "Code Pink" indicates the estimated age of the abducted infant/child.	Call: Operator x111 AND County Police x3311. Report the incident & age, last known location of infant/child.	Go to nearest exit, watch for: λ Infant or large package carries by adult not escorted by staff. λ Any child fitting the announced age.	If you see suspected abductor or missing infant/child, call: County Police x3311. Report suspect's description and direction of travel.
FIRE Code Red Do NOT use elevator!	Fire, smoke or smell of same.	Containment/Notification: λ Rescue persons in danger λ Activate alarm λ Close doors λ Extinguish fire (if possible) Call: Operator x113. Report location.	Use fire extinguisher to extinguish the fire: λ Pull the pin λ Aim the extinguisher λ Squeeze the handle λ Sweep nozzle at base of fire	Evacuate if necessary.
EMERGENCY RESPONSE Code Triage	Activation of Emergency Management Plan in response to a disaster.	Return to normally assigned workstation. Check in with your supervisor. Check on patients under your care. Await further instructions.	Managers (designees) assess area for damage; submit "Code Triage Status Report" form to Command Post (Room 1-L-1) ASAP.	Implement emergency response precautions and procedures as necessary.
EARTHQUAKE	Significant shaking of the building.	Duck & cover under desk or table. Protect head and avoid glass and outside walls.	Triage yourself. Assess area for damage/injury. Render first aide. Relocate persons in danger.	Report damage/injury to supervisor or department manager.
EVACUATION	Remaining in area is dangerous to life, health or safety.	Identify (or follow instructions from public safety personnel, Administrator/designee) area of evacuation assembly area and safe evacuation route to get there.	Evacuation sequence: 1. Those in greatest danger. 2. Ambulatory. 3. Semi-ambulatory 4. Non-ambulatory. 5. Close all doors.	Report to designated evacuation assembly area. Account for all staff and patients.
HOSTAGE	Person held against their will.	Clear area.	Call: Operator x111. Report, location, describe situation.	Complete report of the incident.

VIII. BIOTERRORISM RESPONSE

A. Bioterrorism Response Plan

Harbor-UCLA has developed a Bioterrorism Response Plan that establishes standardized procedures to report, respond to and recover from a suspected or known bioterrorism incident. This plan is contained in Policy EPP No. 45 “Bioterrorism Response” in the *Emergency Preparedness & Management Manual*. The plan is an integral part of the overall Emergency Preparedness Management and Infection Control programs.

The objectives of the Bioterrorism Response Plan are to:

1. Enhance detection of suspected/confirmed bioterrorism incidents.
2. Coordinate with the regional public health, disaster management, and public safety structure.
3. Develop and implement appropriate medical and environmental response measures.
4. Identify and allocate available needed resources and request and allocate additional and/or replenishment resources.
5. Implement public information and campus security plans.
6. Educate staff, students and volunteers about appropriate bioterrorism detection and response measures (see attachment - Bioterrorism Syndromes Poster).

B. Actions to take if one suspects bioterrorism

Any Harbor-UCLA staff member or unit that detects possible bioterrorism symptoms in a patient or receives external notification of a suspected/confirmed bioterrorism event likely to impact Harbor-UCLA must **immediately notify**:

1. Hospital Administration at ext. 2101 (weekdays 0800-1700)
2. Nursing Service Office at ext. 3434 (after hours, weekends, and holidays)
3. The Adult Emergency Department Attending Physician at ext. 3516, 3517, or 3520

IX. PATIENTS EXPOSED TO HAZARDOUS CHEMICAL OR RADIOACTIVE MATERIALS

Harbor-UCLA has established standardized procedures to report, respond to and recover from suspected or known incidents of patients exposed to hazardous chemical or radioactive materials. These exposures could be accidental or as a result of terrorist activity. The procedures are contained in Policy EPP No. 30 “Patients Exposed to Hazardous Materials and/or Radioactive Materials” in the *Emergency Preparedness & Management Manual*.

A. Definitions

1. **Hazardous Material:** Any chemical substance usually a liquid or gas that produces a toxic response in humans.
2. **Radioactive Material:** Any substance capable of emitting ionizing radiation.
3. **HazMat Exposure:** A patient presenting for treatment due to hazardous chemical(s) exposure. The patient may or may not have been decontaminated prior to arrival at Harbor-UCLA.

4. **Radioactive Material Exposure (RAM):** A patient presenting for treatment due to exposure to radioactive material(s). The patient may or may not have been decontaminated prior to arrival at Harbor-UCLA.

B. What to do when one suspects exposure to hazardous chemical or radioactive materials

Any Harbor-UCLA employee or unit that identifies a known or suspected HazMat or RAM exposed patient who has presented at Harbor-UCLA without prior notification by paramedics or the Medical Alert Center must **immediately**:

1. Notify the Adult Emergency Department Attending Physician at ext. 3516, 3517, or 3520.
2. Instruct the patient to stay at present location until personnel wearing appropriate personal protective equipment (PPE) arrive and escort/transport the patient to the decontamination area located by the ambulance ramp.

Note: Any person or area that comes into contact with a Hazmat or RAM exposed patient is considered contaminated and must be secured and decontaminated.

PLEASE COMPLETE THE STUDY QUESTIONS

EMERGENCY PREPAREDNESS **Study Questions**

Select the best answer to each question. **DO NOT** write in the manual.

1. “Code Triage” alerts staff to the following:
 - a. A bomb threat
 - b. An infant/child abduction
 - c. A combative or armed individual
 - d. Activation of the Emergency Preparedness Management Plan
2. The five Hospital Emergency Incident Command System (HEICS) functional sections are:
 - a. Operations, Finance, Logistics, Security, Planning
 - b. Finance, Logistics, Security, Planning, Management
 - c. Planning, Management, Operations, Finance, Logistics
 - d. Logistics, Security, Planning, Management, Operations
3. When “Code Triage” is announced, on duty staff, without specific predesignated disaster response assignments, should immediately report to:
 - a. The Command Post to give a status report
 - b. The Labor Pool to obtain a disaster response assignment
 - c. The Mass Casualty Triage/Admission area to help with incoming casualties
 - d. One’s normally assigned workstation to check in with their supervisor and await instructions from the supervisor, his/her designee, or a HEICS officer
4. All of the following are alternate means of emergency communication **EXCEPT**:
 - a. Telepathy
 - b. Pay phones
 - c. Walkie talkies
 - d. Runner/messengers

5-6. Match the emergency management station in Column I with the appropriate location in Column II.

<u>Column I</u>	<u>Column II</u>
Labor Pool	a. Employees/Public Cafeteria
Command Post	b. Conference Room 1L-1 by the Doctor's Dining Room

7. Which of the following syndromes could indicate possible bioterrorism:

- a. Influenza like illness, acute rash with fever
- b. Acute rash with fever, neurologic syndromes
- c. Acute respiratory distress with fever, influenza-like illness
- d. All of the above

8. If a presenting patient is suspected or known to be exposed to hazardous chemical or radioactive materials, the employee should immediately:

- a. Escort the patient into the Adult Emergency Department
- b. Notify the Adult Emergency Department Attending Physician
- c. Instruct the patient to stay put until personnel wearing appropriate PPE arrive and escort/transport him/her to the decontamination area
- d. Both b and c

9. Any person or area that comes into contact with a patient exposed to hazardous chemical or radioactive materials

- a. Poses no risk to healthcare providers
- b. May be decontaminated at a later date
- c. Requires no special handling treatment
- d. Is considered contaminated and must be secured and decontaminated

Answers to Study Questions

1. d 2. c 3. d 4. a 5. a 6. b 7. d 8. d 9. d

If you answered all of the questions correctly, go on to the next section. If you missed one or more, read the content again and repeat the study guide questions.

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SECURITY

Objectives:

Upon completion of this section, the employee will be able to:

1. Identify different roles of the Los Angeles County Sheriff Deputies at Harbor-UCLA Medical Center
2. Describe actions to minimize security risks
3. Identify sensitive/high security risk areas of the hospital
4. Discuss the County of Los Angeles' Zero Tolerance Policy
5. Identify the process to follow during a telephone bomb threat
6. Define actions to be taken during a "Code Pink"

Instructions to the Employee:

Please read the following section, then answer the study questions at the end of this section.

SECURITY

I. LOS ANGELES COUNTY SHERIFF DEPARTMENT

The Sheriff Department is responsible for safeguarding patients, staff, visitors, and property. Sheriff Deputies are assigned for this purpose and represent the County of Los Angeles in the administration of their duties.

- A. To prevent a crime or if a crime is being committed, staff must contact Sheriff Department at ext. 3311. Sheriff Deputies respond as law enforcement officers using law enforcement techniques following Sheriff Department policies and procedures. The Sheriff Deputies may return the patient to the care of the medical provider. In the event a patient remains in custody of the Sheriff Deputies, written notification is provided to appropriate medical and/or administrative staff by completing the Consent for Release of Medical Information for Patients in Police Custody and placing the white copy in the patient's medical record.
- B. When Sheriff Deputies respond in a law enforcement capacity to a situation involving a patient, clinical staff who are present shall document:
 - 1. The date, time, and description of the incident necessitating calling the Sheriff Department.
 - 2. The name of Sheriff Deputy who responded.
 - 3. The actions taken by Sheriff Department (eg, removed the patient from the hospital or returned the patient to the custody of medical staff).
- C. In law enforcement situations where the use of force is required, the deputy ensures that the incident and actions taken are documented in the Use of Force Report Form. In situations where use of force involves pepper spray, tasers or batons on a patient, appropriate clinical staff, Hospital Administration, and Sheriff's Department personnel shall:
 - 1. Meet to review and evaluate the events leading up to the incident and the actions taken by clinical and law enforcement personnel within 72 hours.
 - 2. Identify appropriate measures to minimize the possibility of similar occurrences in the future, as well as ensure the incident was appropriately documented.
 - 3. Document the results of this review and evaluation using the Administrative Review form.

II. EMPLOYEE IDENTIFICATION BADGES

- A. The Sheriff's Department requires all hospital staff to have and wear a photo identification badge while on the grounds of Harbor-UCLA Medical Center. Persons without identification should be questioned. Persons with IDENTIFICATION NOT RECOGNIZED should also be questioned.
- B. Federal law requires that a police report must be filed for all lost or stolen government identification.

III. REPORTING SUSPICIOUS PERSONS

- A. It is important to report suspicious persons to the Sheriff Department. When encountering a person in a work area that does not belong, the first and most important thing to do is to acknowledge that person. Upon acknowledging a strange person, if he/she does not provide a valid explanation of why he/she is there, notify Sheriff Department immediately.

B. Use the acronym **DANGER** to respond to a suspicious person:

Do approach strangers in one's area
Ask if you can be of assistance
Note anything out of the ordinary
Give information or assistance, if needed
Evaluate what one sees and hears
Report suspicious circumstances immediately to the Sheriff Department at ext. 3311

Be prepared to include a description of the person(s), including gender, age, hair color, height, weight, clothing, mode of transportation (if applicable).

IV. WORKPLACE VIOLENCE PREVENTION

A. Healthcare providers routinely care for patients and visitors in a state of heightened emotional stress due to the illness/injury they or their loved one has suffered. When in this state, patients and visitors can become defensive, less tolerant and lose some process for rational thought. When confronted with long delays and often unsatisfactory solutions to their problem, they can act out.

B. A variety of forces can impact and trigger an incident of workplace violence or assault. Recognition of behavioral problems, prompt intervention, and strict enforcement of policies is the best solution to prevent these incidents.

There are four classifications of workplace assaults:

1. **Customer-Client** – These are simple, non-fatal assaults.
2. **Criminal Intent** – The assault is a result of an attempt to rob, steal or result in the commission of another crime. In this case, the assault is generally secondary to the intended crime.
3. **Worker vs. Worker** – These assaults can be extremely serious. Working in a stressful environment can create tension among employees.
4. **Personal Relationships** – These types of assaults are the result of personal relationships, otherwise known as domestic violence, which can interfere or jeopardize workplace safety.

C. The County of Los Angeles has a Zero Tolerance Policy for acts of workplace violence, including threats that do not rise to the level of physical violence. This policy requires mandatory reporting and discipline for any founded acts, regardless of criminal prosecution.

D. If one suspects an employee who might commit an act of violence in the workplace, but no threats or assaults have been made, report the matter to one's supervisor immediately.

E. The key to prevention lies in intervention. If an employee is acting in an erratic manner or creating a hostile work environment, notify one's supervisor immediately.

V. SENSITIVE/HIGH SECURITY RISK AREAS IN THE HOSPITAL

A. Emergency Department, Psychiatry, Nursery, Labor & Delivery, 7 West, Pharmacy, Cashiers, and Warehouse.

VI. STRATEGIES TO ELIMINATE OR MINIMIZE THE SECURITY RISKS

A. 24 hour, 7 days a week combination of Sheriff Department (Sheriff Deputies), private security guards, parking attendants and weapon screening posts

B. Emergency Department: metal detectors, Sheriff Department (Sheriff Deputies) presence, Crisis Prevention Institute/Managing Assaultive Behavior training, panic alarms, employee identification badges

C. Psychiatry: locked unit, screen visitors and patients for weapons, Crisis Prevention Institute/Managing Assaultive Behavior training, panic alarms, patient identification, employee

identification badges

- D. Nursery/Labor & Delivery/Post-Partum: Sheriff Department monitoring of lobby and visitors, infant identification checks, staff enforcement of staff identification policy, etc.
- E. Pharmacy: security alarm system, security video system, doors all locked, panic alarm in outpatient pharmacy, staff identification badges
- F. Cashiers: bulletproof glass, locked doors, staff identification badges
- G. Warehouse: locked doors, security alarm systems, staff identification badges

VII. GENERAL PROCEDURES TO FOLLOW DURING A SECURITY INCIDENT



- A. Telephone bomb threat
 - 1. Try to stay calm
 - 2. Note details of conversation and report to supervisor and Sheriff Department at ext. 3311 for investigation and instruction
 - 3. Ask when the bomb will explode and where it is
 - 4. Search suspected areas for suspicious packages
 - 5. If found, do not handle. Wait for instructions
- B. Suspicious packages
 - 1. Unopened
 - a. Avoid handling packages that look suspicious
 - b. Evacuate and deny entry to the area
 - c. Notify Sheriff Department at ext. 3311
 - 2. Opened
 - a. If letter/package is opened and suspected to contain a toxin or biohazard (eg, anthrax), place trash can (or similar object) over the item
 - b. Isolate the area
 - c. Move to another location along with others who are in the immediate area
 - d. Notify Sheriff Department at ext. 3311
 - e. DO NOT GO HOME OR LEAVE COUNTY PROPERTY
- C. Disturbance
 - 1. Note details of incident and report to Sheriff Department at ext. 3311
 - 2. If possible, stabilize situation
- D. Theft of personal or county property
 - 1. Do not leave valuable items unattended (eg, wallets, pagers, cell phones, portable computers, etc.)
 - 2. Do not be a hero
 - 3. Cooperate with the assailant
 - 4. Be a good witness, note details and report to the Sheriff Department at ext. 3311

E. Infant/Child Abduction**1. CODE PINK**

If an infant/child is abducted or suspected to have been abducted a “CODE PINK” is called. The procedure involves calling the hospital operator at ext. 111 and informing the operator to activate a CODE PINK and stating the age of the infant/child and the floor area of occurrence. The staff of the floor of occurrence should activate the panic alarm if their floor has one, as well as notify the charge nurse, nurse manager, Sheriff Dept. and shift nurse manager as appropriate. Nursing staff on the unit of occurrence should check the surrounding areas and rooms, count all babies/children if applicable, and secure the medical records of the mother and infant/child involved.

When the CODE PINK is activated the affected unit is secured and only staff with identification badges can enter that ward or unit. Sheriff Deputies and local law enforcement may become involved. The hospital is also secured. Staff are directed to look for and report any suspicious persons or bundles to the Sheriff’s Dept. at ext. 3311. Persons leaving the Medical Center will be routed so that the only exit will be by the Outpatient Pharmacy/Gift Shop lobby exit. The only open entrance to the facility during the CODE PINK will be the Emergency PCDC West entrance.

If the abduction is observed it is important to obtain a description of the infant/child and abductor. Attempt to note the sex, hair, skin color, height, weight, clothing, as well as any distinguishing characteristics, such as glasses, tattoos etc.

2. PINK IDENTIFICATION BADGES

To facilitate the security of babies/children at Harbor-UCLA, the staff working with mothers and babies on the 6th and 7th floors in the areas of: 7E Labor & Delivery, Level II Nursery, 6E NICU, and 7 West have been issued pink identification badges. The pink badge identifies that these staff are authorized to remove an infant from the mother’s room or nursery. The mothers who deliver babies at Harbor-UCLA, are instructed not to give their baby away to anyone without a pink identification badge. Staff without a pink identification badge who must remove a baby from a mother’s room, for any reason, must first inform the mother’s nurse. The nurse with the pink identification badge will then inform the mother that the removal of the baby is necessary.

VIII. PROCESSES FOR REPORTING A SECURITY INCIDENT THAT INVOLVES PATIENTS, VISITORS, PERSONNEL OR PROPERTY

- A. Be a good witness by noting any relevant details (eg, people, time, place, injuries, or loss) regarding the incident.
- B. Notify one’s supervisor and the Sheriff Department at ext. 3311.

PLEASE COMPLETE THE STUDY QUESTIONS ON THE NEXT PAGE

SECURITY Study Questions

Select the best answer to each question. **DO NOT** write in the manual.

1. The telephone number within the Medical Center to contact the Sheriff's Department is:
 - a. 3333
 - b. 3311
 - c. 3113
 - d. 1234
2. If a stranger or unknown person is in a work area, all of the following actions should be taken **EXCEPT**:
 - a. Notify Sheriff's Deputies or Security
 - b. Ignore the person and avoid eye contact
 - c. Ask the subject if he/she is lost or needs help
 - d. Note their description, anything out of the ordinary and evaluate his/her behavior
3. If an employee receives a phone call and the caller informs the employee that there is a bomb, which of the following actions should be avoided?
 - a. Panic and hang up the phone
 - b. Notify the Sheriff Department immediately
 - c. Ask when the bomb will explode and where it is
 - d. Pay attention to the words, voice nuances and background noises
4. All of the following are considered sensitive/high risk security areas **EXCEPT**:
 - a. Cashier
 - b. Emergency Department
 - c. Nursery/Labor & Delivery
 - d. Respiratory Therapy Department
5. Which of the following strategies minimize or eliminate security risks:
 - a. Staff identification badges
 - b. Metal detectors at hospital entrances
 - c. Presence of Sheriff's Department/security guards
 - d. All of the above
6. All of the following are the correct process/procedure to take when CODE PINK is activated **EXCEPT**:
 - a. Activate the panic alarm on the floor of occurrence, if the floor has a panic alarm.
 - b. Secure affected unit and only staff with identification badges can enter that ward or unit.
 - c. Only the nursing staff on the unit of occurrence should check the surrounding areas and rooms.
 - d. The only open entrance to the facility during the CODE PINK will be the Emergency PCDC West entrance.

CHECK YOUR ANSWERS TO THE STUDY QUESTIONS ON THE NEXT PAGE

SECURITY **Answers to Study Questions**

1. b 2. b 3. a 4. d 5. d 6. c

If you answered all of the questions correctly, go on to the next section. If you missed one or more, read the content again and repeat the study guide questions.

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HAZARDOUS MATERIALS COMMUNICATION AND SAFETY PROGRAM

Objectives:

Upon completion of this section, the employee will able to:

1. Describe methods for identifying a hazardous material
2. Identify two facts about a chemical that must be included on the label of the container
3. Describe the proper storage procedure for hazardous materials
4. Identify proper use of personal protective equipment
5. Describe proper disposal of chemical hazardous waste, medical waste including sharps, trace and bulk antineoplastic/ chemotherapy waste, other pharmaceutical waste and empty glass containers
6. Identify three main routes of exposure to cytotoxic or antineoplastic chemotherapy drugs

Instructions to the Employee:

Please read the following section, and then answer the study questions at the end of this section.

HAZARDOUS MATERIALS COMMUNICATION AND SAFETY PROGRAM

Note: This section highlights information from the *Hazardous Materials and Wastes Training Manual*. This manual is present in all departments; if it is not available, call the HazMat office at ext. 2835 for a copy. A *Respiratory Protection Plan*, a *Medical Waste Management Plan* and the *Antineoplastic-Chemotherapy Medication as a Hazardous Material Manual* may also be obtained. The employee is responsible for complying with the information in the manuals and plan.

I. HAZARDOUS MATERIALS IDENTIFICATION

- A. The **LABEL** on a container holding a hazardous material must be marked with the **CHEMICAL IDENTITY** and **HAZARD CLASS** of the most dangerous components.
- B. There must be a Materials Safety Data Sheet (MSDS) available at the location where a hazardous chemical is present. An MSDS contains necessary safety information for proper management of the hazardous material.
- C. It is the **SUPERVISOR'S RESPONSIBILITY** to ensure that labels and the MSDS are available and appropriate.
- D. It is the **EMPLOYEE'S RESPONSIBILITY** to read and make sure he/she understands the information on the labels and the MSDS.
- E. The information on hazard class in the MSDS will guide the employee as to how to manage the material for proper:
 - 1. Storage
 - 2. Protective Equipment
 - 3. Spill and Emergency Response
 - 4. Disposal

II. HAZARD CLASS TABLE (Chemicals can belong to more than one class)

HAZARD CLASS	DEFINITION	EXAMPLE	PRECAUTIONS
Reactive	Materials that react violently (explode or emit a toxic gas) upon such events as shock, heat or water	Picric acid, peracetic acid, sodium azide, sodium cyanide	Store and transport carefully to avoid the hazard that will cause the reaction
Flammable	Materials that burn easily (ignite at room temperature with spark)	Alcohol, xylene	Store in flammable cabinet. Keep small amounts in stock.
Oxidizer	Materials that support burning of flammable chemicals	Iodine, bleach, hydrogen peroxide, oxygen, any chemical containing "per" in its name	Segregate from flammables otherwise, treat them as corrosives, which are a secondary property.
Corrosive (acid, base or organic)	Materials that cause tissue injury	Acids, ammonia, cidex, wax remover, paint remover	Wear gloves and safety glasses, minimize inhalation

II. HAZARD CLASS TABLE (Continued)

HAZARD CLASS	DEFINITION	EXAMPLE	PRECAUTIONS
Toxic	This class is a general description of any material that causes sickness if ingested, touched or inhaled	All the above (Reactive, oxidizers and corrosives and some that may have other characteristics, such as Halon or insecticides)	Avoid skin contact, inhalation and ingestion
<i>Toxic subclass: "Extremely Toxic" or "Poison"</i>	Materials that can cause sickness or death even from exposure to small quantities	Mercury, phenol, cyanide, azide, cacodylic acid, osmium tetroxide	Store under lock and key. Take extreme care to avoid skin contact, inhalation and ingestion
<i>Toxic Subclass: "Carcinogen"</i>	Materials that increase the probability of contracting cancer	Antineoplastic medication (Chemotherapy), formalin, chromium, benzene, arsenic	Take extreme care to avoid skin contact, inhalation and ingestion
<i>Toxic Subclass: "Teratogen"</i>	Materials that could decrease reproduction and may cause birth defects	Nitrous oxide, ribavirin, ethylene oxide	Take extreme care to avoid skin contact, inhalation and ingestion
Combustible	Materials which are not quite as much a hazard as flammables but still burn easily	Diesel, paper, rags, curtains	Avoid crowded storage and storage close to the ceiling

III. STORAGE

The following regulations for storage of hazardous materials are derived from mandates from Occupational Safety and Health Administration, The Joint Commission and the Uniform Fire Code.

- A. Hazardous materials must be stored separately from nonhazardous supplies.
- B. Hazardous waste must be labeled "Hazardous Waste" and stored separately from hazardous materials.
- C. Hazardous materials should be separated according to Hazard Class (see table).
- D. A barrier or distance should separate mutually reactive materials.
- E. Hazardous materials should not be stored on the floor without a spill tray.
- F. Flammables in quantities more than 8 pints must be stored in a "Flammable" cabinet when in patient access areas.
- G. Small containers (causing small spills) are preferable to large containers.
- H. Containers over 5 gallons need secondary containment (spill tray).
- I. Areas with carcinogens should be labeled as such.
- J. Containers of hazardous materials must be made of materials that do not react with the contents. They must be labeled, and they must be closed when not in use. If the chemical is in a container not provided by the manufacturer, it must be labeled by the user with its chemical identity and hazard class.

IV. PROTECTIVE EQUIPMENT

- A. A chemical fume hood should be used when possible for handling corrosives and toxics.
- B. Respirators
 - 1. Respirators are used as protection from exposure to chemicals when all other methods of protection have been exhausted. Respirators are also used for protection in an emergency response and may be used where the exposure is judged less than harmful but the smell is unpleasant.
 - 2. Respirator types must be approved by HazMat for the purpose used (not all chemical respirators protect against the same chemicals).
 - 3. Respirators may be used only after a health examination by Employee Health (that is the law) and after appropriate training and fit testing have been completed.
 - 4. N-95 Respirators are designed for protection against airborne pathogens, dust and chemical mists. They can not be used for protection against chemical vapor. These respirators do not protect against vapor.

V. GENERAL EMERGENCY SPILLS AND EXPOSURES

- A. Exposure
 - 1. Irrigate the contacted area with water. If the lungs are affected, get fresh air or oxygen.
 - 2. Immediately go to the Emergency Department and bring information about the spilled material (MSDS or container with label).
- B. Spill
 - 1. If the agent and its hazard are known, the hazard is minimal, and the employee is trained in clean-up, the employee should follow the prescribed procedure.
Examples are:
 - a. A pathology technician cleaning up an acid spill with acid absorbent
 - b. A nurse cleaning up a minor formalin spill with Formalex
 - c. A Facilities Management employee cleaning up a minor diesel spill with vermiculite
 - d. A nurse cleaning up a manageable chemotherapy spill with a designated kit
 - e. A nurse or Environmental Safety employee cleaning up spill from a mercury thermometer with a designated kit
 - 2. If the hazard is too great or if the employee is not trained or does not have any information about the chemical or are for any other reason unsure, the employee should:
 - a. Alert other employees and the supervisor to the area of the hazard
 - b. Remove all persons from immediate danger and cordon off the area
 - c. Close the door and post a warning sign
 - d. Call ext. 2835 for help or call the supervising operator and ask to get in contact with the HazMat officer. Remember to report: name, location, phone number and nature of spill

VI. REPORTING

- A. Report a HazMat spill or incident to one's supervisor and to the HazMat Safety Office at ext. 2835 and County Sheriff's at ext. 3311 for clean-up response. Report to HazMat even if it has been cleaned up.
- B. Report an industrial injury to your supervisor, to Employee Health at ext. 2360 and to HazMat at ext. 2835.

C. Report a threatened release or spill to one's supervisor, the HazMat Office at ext. 2835 and the Director of Environmental Safety at ext. 2836. Complete an online *Patient Safety Net* report. An Unsafe Condition Report should also be filed.

VII. CHEMOTHERAPY/ANTINEOPLASTIC DRUG SAFETY

A. Introduction

1. Only registered nurses who have successfully completed a chemotherapy administration course are allowed to administer chemotherapy. However, it is important that all staff providing direct patient care be familiar with chemotherapy drug safety.
2. Exposure of healthcare personnel to these drugs as well as other substances in the healthcare setting has become of increasing concern in recent years. It is known that exposure to these drugs when administered for therapeutic reasons can have mutagenic (damage to chromosomes and cells), teratogenic (damage to the developing embryo or fetus), and/or carcinogenic (promote cancer development) effects.

Exposure to chemotherapy drugs can occur during:

- a. Drug preparation
- b. Drug transport
- c. Drug administration and disposal
- d. Direct contact with body fluids of patients receiving such drugs
- e. IV spills from tube connections

B. Drug safety

1. Exposure during drug preparation can occur by absorption through the skin, inhalation of fumes, aerosols or powder or by ingestion of food or water if contaminated when located in the immediate area. Pharmacists and pharmacy technicians are at greatest risk of exposure due to the amount of their contact with chemotherapy. Preparation of chemotherapy drugs is therefore restricted to the pharmacy where special facilities and protocols can be implemented. Food and beverages are not allowed in the immediate area where chemotherapy drugs are prepared.
2. Once the chemotherapy is prepared for administration whether in the syringe or solution form, the preparations are placed in a clear plastic bag and then double-bagged in a yellow plastic bag labeled "Caution-Chemotherapy" before dispensing to the clinical area.

C. Handling of body fluids

1. Safety precautions must be considered when handling body fluids of patients who have received chemotherapy within the previous 48 hours. Body fluids include blood, vomitus, urine or feces. Universal or Standard Precautions include the use of latex gloves which are a direct barrier to skin exposure. Wearing a disposable long-sleeved and closed-front gown which is discarded after every use may be indicated in some situations where splatter or spray is possible.

D. Accidental exposure and spills

1. Incidental spills and breakages should be cleaned up immediately by properly protected person trained in the appropriate procedures. The area should be identified with a warning sign to limit access to the area. Incident reports should be filed to document the spill and persons exposed.
2. Personnel contamination. Contamination of protective equipment or clothing, direct skin, or eye contact should be treated by:
 - a. Immediately remove the gloves and gown.

- b. Immediately cleanse the affected skin with soap and water.
- c. Flood the affected eye at eyewash fountain or sink for at least 15 minutes for an eye exposure.
- d. Obtain Medical attention. *At Harbor-UCLA go to the Emergency Room* (also for inhalation of Hazardous Drugs in powdered form).

3. Clean-up. When a spill occurs the area should be isolated and aerosol generation avoided. (*In Harbor-UCLA use the Kendal, Chemotherapy Drug SPILL KIT—Blue and Green.*) Liquid spill is limited by gently covering with absorbent sheets or spill control pads or pillows.

- a. Protective apparel, including respirators should be used.
- b. Most Chemotherapy Drugs are not volatile therefore do not require chemical respirators.
- c. All contaminated surfaces should be thoroughly cleaned 3 times with detergent and water, then rinsed with clean water. Contaminated materials and sharps are disposed of in respective chemotherapy waste containers.

Spill Kits and disposal containers should be kept near area where the hazardous drugs are used.

Follow the manufacturer's instructions located on the Spill Kit. Use the supplies included in the kit, except use your own N-95 respirator. It has been fit tested and is better than the one that comes with the kit.

VIII. MANAGEMENT OF HAZARDOUS WASTE

- A. Chemical waste is dated and labeled "Hazardous Waste" and held in the generating department or service in a dedicated area, until pick-up by the Hazardous Materials Safety Office. The Hazardous Materials Safety Office sorts the chemical waste according to hazard characteristics: (1) toxic, (2) flammable, (3) reactive, and (4) corrosive.
- B. Pharmaceutical waste materials are disposed of as "Hazardous Waste", a waste that requires incineration. This waste is combined with the sharps waste in the Wards and Clinics and placed in secure, lined lockable containers labeled "Hazardous Waste and Pharmaceuticals". When $\frac{3}{4}$ full and after being locked the containers are collected by designated waste handlers. The containers are picked up regularly.
- C. Medical infectious waste containing blood and other bodily fluids is placed in biohazard containers (red bags and boxes). These red containers are kept separately from other trash.
- D. Chemotherapeutic waste materials:
 - 1. Chemo-bulk: All actual visible or solid waste is placed in HazMat waste container and picked up by Hazardous Materials Safety as "Hazardous Waste".
 - 2. Chemo-trace: Trace waste with no detectable chemotherapy waste is placed in yellow bags or white and yellow containers labeled "Chemotherapy" or "Biohazard."
 - 3. Chemo-sharps: Are placed in Chemotherapy Sharps containers.

PLEASE COMPLETE THE STUDY QUESTIONS ON THE NEXT PAGE

HAZARDOUS MATERIALS COMMUNICATION AND SAFETY PROGRAM
Study Questions

Select the best answer to each question. **DO NOT** write in the manual.

1. Essential information for identifying proper management of a hazardous material can best be obtained by:
 - a. Reading the MSDS
 - b. Smelling the material
 - c. Asking the Safety Officer
 - d. Noticing the color and viscosity
2. All of the following are true regarding protective equipment **EXCEPT**:
 - a. N-95 respirators are available as one-size fits all
 - b. A chemical fume hood provides good protection for harmful vapors
 - c. Medical gloves are sufficient hand protection for non-corrosive toxics
 - d. Rubber gloves and goggles are used when pouring corrosive materials such as Cidex (glutaraldehyde)
3. Which of the following is **TRUE** about pharmaceutical waste?
 - a. It is considered hazardous waste
 - b. It is not considered hazardous waste
 - c. In small amounts it may be flushed down the sink
 - d. In small amounts it may be disposed of in the trash
4. Two facts about a chemical that must be on the label:
 - a. Health hazard and recommended disposal method
 - b. Chemical identity of the substance and the hazard class
 - c. Identity of the substance and the recommended disposal method
 - d. Recommended personal protective equipment and recommended disposal method
5. Accidental exposure to chemotherapy drugs can occur via absorption through the skin, inhalation or ingestion of contaminated food or water.
 - a. True
 - b. False
6. Environmental Services (housekeeping) may clean up large chemotherapy spills.
 - a. True
 - b. False

CHECK YOUR ANSWERS TO THE STUDY QUESTIONS ON THE NEXT PAGE

Answers to Study Questions

1. a 2. a 3. a 4. b 5. a 6. b

If you answered all of the questions correctly, go on to the next section. If you missed one or more, read the content again and repeat the study guide questions.

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RADIATION SAFETY PROGRAM

Objectives:

Upon completion of this section, the employee will be able to:

1. Identify information resources regarding radiation safety
2. Discuss how radiation exposure occurs in the hospital
3. Identify the basic principles of radiation safety
4. Describe protocols used in case of radiation exposure during an emergency

Instructions to the Employee:

Please read the following section, then answer the study questions at the end of this section.

RADIATION SAFETY PROGRAM

I. HOW IS AN EMPLOYEE EXPOSED TO RADIATION?

- A. Working in a hospital may expose an employee to a variety of environmental hazards including radiation. This exposure can occur while taking care of a patient who received radioactive materials or while working in areas that have radiation generating machines or sources.

Sources of radiation:

1. Radiation producing machines (eg, x-ray/fluoroscopic equipment, portable x-ray machine)
 - a. Exposure no longer exists once the exposure switch of the x-ray machine is turned off. Radiation ceases instantly and neither the patient nor the machine give off any additional radiation.
2. Radionuclides used in diagnostic testing (small quantities of radioactive materials with short lives), tests done on tissue and blood samples in vitro and in vivo (eg, scan procedures done in nuclear medicine)
3. Radioactive materials used in treatment (eg, radiation implants)

II. BASIC PRINCIPLES OF RADIATION SAFETY

A. **Time** - Keep the length of exposure to a minimum

1. Assess the patient and the environment. Plan patient care to accommodate minimal exposure to the radioactive patient.

B. **Distance** - Keep one's distance (away) from a source of radiation

1. Always maintain an appropriate distance (away) from the patient, except when it is necessary for the patient's care. The farther away one is from the source of radiation, the less radiation one absorbs. Wear lead aprons as appropriate (eg, for use with x-ray/fluoroscopic equipment). Whenever possible, without harm or discomfort to the patient, encourage the patient to do self care. Wear film badges as assigned in units 4E, 5E, and OR.

C. **Shielding** - Place shielding between the employee and the source

1. Whenever possible, use the patient's body as a shield by standing in a position not directly adjacent to the site of the radioactivity.

D. **Contamination Control** - Confine the spread of radioactive contamination

1. Excreted radioactive waste can be dispersed around the room and contaminate staff and visitors. For example, the patient who receives radioiodine for therapy, excretes radioiodine in the urine.

2. Precautionary measures in caring for radioactive patients

- a. All signs and safety measures are placed and removed by the Radiation Safety Office.
- b. A **sign** indicating "Caution-Radioactive Material" is placed on the **door** and on the **bed** in the patient's room.
- c. A "**Caution-Radioactive Material**" label is placed on the outside cover of the patient's chart.

3. Anyone providing direct care to patients who receive therapy with radionuclides must read and be familiar with the information on the *Radiation Protection Guide for Hospital Staff*.

III. PROTOCOLS FOR IN-HOUSE EMERGENCY PROCEDURES FOR FIRES OR OTHER MAJOR EMERGENCIES WHEN RADIATION IS INVOLVED

A. **Follow the RACE response: Rescue, Alarm, Contain, Extinguish**

This has already been covered in the section on Fire/Life Safety.

1. Call ext. 113 to state the location of the fire
2. Notify Radiation Safety Officer at ext. 2835. During nonbusiness hours call the Nursing Shift Supervisor for instructions on how to notify the Radiation Safety Officer.
3. Notify all personnel in the area

B. **Control contamination**

1. Avoid tracking contamination or passing contaminated equipment into clean areas by emergency workers.
2. A Radiation Safety representative will provide input related to fire fighting or other activities where radiation is involved.

C. **Monitor**

1. A radiation safety representative will supervise the area
2. Monitor all persons involved in combating the emergency

D. **Report**

1. The responsible investigator forwards a complete history of the incident to the Radiation Safety Officer

IV. RADIATION EXPOSURE LIMITS TO PERSONNEL

- A. Radiation safety policies and procedures are designed to limit radiation exposure to personnel to **As Low As Reasonably Achievable (ALARA)**.
- B. The basic philosophy behind this concept is that **no exposure to radiation is desirable or without risk**.
- C. Each person should avoid unnecessary exposure. Personnel working actively in radiation therapy are issued film badges (personnel dosimeters) which measure the radiation received.
- D. In general, maintaining a distance of 6 feet from the patient being x-rayed with a portable x-ray unit and staying out of the main radiation beam is adequate to ensure the safety of individuals in the vicinity of the patient

PLEASE COMPLETE THE STUDY QUESTIONS ON THE NEXT PAGE

RADIATION SAFETY PROGRAM **Study Questions**

Select the best answer to each question. **DO NOT** write in the manual.

1. Principles of radiation safety include:
 - a. Keep time exposure, distance, shielding and contamination at a minimum
 - b. Keep time exposure and distance to a minimum, use shields and control contamination
 - c. Keep time exposure and distance to a maximum, use shields and control contamination
 - d. Keep time exposure to a minimum, maintain safe distance, use shields and control contamination
2. In case of a fire in an area where radiation is used, one needs to notify the Radiation Safety officer:
 - a. Immediately
 - b. Within 2 weeks
 - c. After the fire is contained
 - d. After an investigation is completed
3. All of the following expose the healthcare worker to radiation **EXCEPT:**
 - a. Looking at an x-ray on the x-ray view box
 - b. Working in an area that has fluoroscopic equipment
 - c. Standing within two feet of a person having an x-ray
 - d. Caring for a patient who received radioactive material
4. The *Radiation Protection Guide for Hospital Staff* is a comprehensive manual available on all Nursing Units.
 - a. True
 - b. False

CHECK YOUR ANSWERS TO THE STUDY QUESTIONS ON THE NEXT PAGE

Answers to Study Questions

1. d 2. a 3. a 4. a

If you answered all questions correctly, go on to the next section. If you missed one or more, read the content again and repeat the study guide questions.

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YOU HAVE COMPLETED THE MANDATED SECTION.

Please complete the Mandated Section take home exam at this time.

Direct care giving licensed nurses continue on to the Clinical Competency Section.

Please refer to the table on page iii of this manual or consult your immediate supervisor if you have questions about which sections of Reorientation you must complete.

Clinical Competency Section

(Direct Care Licensed Staff Only)

NURSING DEPARTMENT REORIENTATION SELF STUDY GUIDE: CLINICAL COMPETENCIES

TABLE OF CONTENTS

Rapid Recognition and Response.....	2
Blood Products and Transfusions.....	10

INSTRUCTIONS FOR CLINICAL COMPETENCIES

1. Review the content in each section.
2. Complete the study questions at the end of each section.
3. Check your answers against the answer key provided for each set of study questions.
4. Complete the Clinical Competencies test and submit during Skills Assessment Workshop. If Clinical Competencies are not completed during Skills Assessment Workshop, bring completed test to Clinical-Professional Development, Building N-18, Monday thru Friday (except county holidays) between the hours of 0730-1630.
5. The Clinical Competencies test consists of two sections: Rapid Recognition and Response to Changes in Patient Condition and Blood Products and Transfusion. There are a total of 15 questions on the test, divided in two sections.

Rapid Recognition and Response to Changes in Patient Condition section: there are 5 multiple choice questions and you are allowed to miss 1 question.

Blood Products and Transfusion section: there are 10 multiple choice questions and you are allowed to miss 2 questions.

Licensed staff assigned to the following areas/roles **do not** need to complete the Blood Products and Transfusion section:



- 8West
- Ambulatory Care (NOTE: Licensed staff working in Infusion Clinic must complete the competency)
- CRU
- Employee Health
- Patient Flow Facilitator
- Psych ER
- Urgent Care Clinic
- Wound Care Team

6. PLEASE DO NOT WRITE IN THE MANUAL

RAPID RECOGNITION AND RESPONSE TO CHANGES IN PATIENT CONDITION

Objectives:

Upon completion of this section, the nurse will be able to:

1. Discuss normal and abnormal vital signs for age specific patients
2. Recognize indications of a deteriorating patient
3. Identify critical changes in patient's condition according to Harbor-UCLA Medical Center's policy
4. Define the ultimate form of clinical deterioration
5. Identify the patient areas which the Rapid Response Team responds
6. State the correct sequence for activating the Rapid Response Team
7. Identify the differences between the Rapid Response Teams and Code Blue/White Teams

Instructions to the employee:

Please read the following section, then answer the study questions at the end of this section.

RAPID RECOGNITION AND RESPONSE TO CHANGES IN PATIENT CONDITION

I. INTRODUCTION

The Rapid Response Team (RRT) is designed to improve staff's ability to recognize and respond quickly and appropriately to a deteriorating patient.

Harbor-UCLA patient care staff are trained to recognize signs of clinical deterioration. Any staff member who recognizes these signs will initiate a rapid response by notifying a specially trained team. The team will be responsible for responding immediately to the patient's bedside, performing initial assessment and intervention, and notifying the patient's existing care team (if they are not already part of the team or aware of the response).

The nurse's role is ongoing assessment of the patients status. It is the responsibility of the nurse to identify changes in the patients condition and decide an appropriate response. If the nurse assesses that the patient's condition is deteriorating, the nurse may choose to activate the rapid response team. The nurse may choose not to activate the rapid response team if a resident (PGY 2 or above) from the primary team is already present and managing the patient, although activation is still an option if additional resources are needed. The RRT will respond for admitted patients only on the ward and Progressive Care Unit (PCU)/Trauma Transitional Care Unit (TTCU) areas. Nurses working in other areas would not activate the rapid response team though they should be aware of the rapid response team process and assess changes in their patients.

II. BACKGROUND

Patients who are initially stable can deteriorate clinically in a short period of time. The ultimate form of clinical deterioration is a respiratory or cardiac arrest. The hospital has created Code Blue and Code White teams to provide immediate response in these cases. Information from researchers and healthcare improvement agencies shows that many patients who have a Code Blue/Code White response actually begin to show signs of deterioration many hours before the Code Blue/Code White is called. Rapid Response Teams are now widely used to provide immediate assessment and stabilization, long before a Code Blue/Code White occurs.

The patient observation/assessment includes the ongoing collection and analysis of patient data to determine the need for additional data, the patient's care needs, and the care to be provided. The interpretation of information obtained from the patient and others, is integrated to identify and prioritize the patient's needs of care.

III. SIGNS OF DETERIORATION

1. Acute change in heart rate.
2. Acute change in systolic blood pressure.
3. Acute change in respiratory rate or effort.
4. Acute change in oxygen saturation.
5. Acute change in mental status.
6. Acute change in urinary output to less than 50 mL in 4 hours (adults only).
7. Severe, uncontrolled bleeding.
8. Any staff member is worried that the patient is deteriorating even in the absence of any of the above criteria.

Age-specific vital signs parameters are summarized in the table below and the RRT should be activated for **acute** changes.

Table 1. Age Specific Vital Signs Parameters.

Age	Heart Rate	Respiratory Rate	Systolic Blood Pressure	Oxygen Saturation
Adult	Less than 40 More than 130	Less than 8 More than 28	Less than 90	Less than 90%*
Pre-teen/Adolescent (over 10 years)	Less than 50 More than 100	Less than 5 More than 25	Less than 90 More than 140	
School Age (6-10 years)	Less than 60 More than 120	Less than 8 More than 25	Less than 90 More than 120	Less than 94%†
Toddler/Preschooler (1-5 years)	Less than 60 More than 180	Less than 10 More than 30	Less than 90 More than 110	
Infant (30 days-1 year)	Less than 70 More than 180	Less than 15 More than 50	Less than 80 More than 110	
Neonate (0-30 days)	Less than 80 More than 200	Less than 20 More than 60	Less than 60 More than 90	

* Despite oxygen.

† Despite supplemental oxygen therapy or the patient requires a non-rebreather mask.

IV. RAPID RESPONSE TEAMS

There are four different rapid response teams covering the different clinical services in the hospital:

Rapid Response Team Coverage	Clinical Service
Medical RRT – consists of: <ul style="list-style-type: none"> Day float resident from 8am-5pm or ward call resident for nights, weekends, and holidays Respiratory care provider (RCP) ICU nurse (when available) 	Medicine Family Medicine Hospitalist Neurology Psychiatry
Surgical RRT – consists of: <ul style="list-style-type: none"> Trauma surgery junior resident on call RCP ICU nurse (when available) 	Trauma Surgery Colorectal Surgery GI/Oncology Surgery Vascular Surgery Cardiothoracic Surgery Endovascular Surgery Orthopedic Surgery Head and Neck Surgery (ENT) Oral/Maxillofacial Surgery (OMFS) Plastic Surgery Urology Neurosurgery
Pediatric RRT – consists of: <ul style="list-style-type: none"> Pediatric Intensive Care Unit (PICU) resident or designee RCP from PICU or Neonatal Intensive Care Unit (NICU) A NICU nurse will respond to pediatric RRT requests initiated from 7E Level II Nursery, 7E L&D or 7W; a PICU nurse will respond to all other pediatric RRT requests. 	Pediatrics
OB/GYN RRT – consists of: <ul style="list-style-type: none"> Resident carrying Gynecology consult pager RCP ICU nurse (when available) 	Obstetrics Gynecology
The Patient Flow Facilitator will also respond to all RRT activations to help coordinate any needed transfers or resources.	

V. ACTIVATING THE RAPID RESPONSE TEAM

A. Activation

- Any staff member who recognizes criteria for a deteriorating patient admitted to a ward or Progressive Care Unit (PCU)/Trauma Transitional Care Unit (TTCU) should notify that patient's nurse at once. Patients and families are also informed as part of unit orientation that they should notify the patient's nurse if they think the patient is getting worse. The nurse will then assess the patient and determine if RRT activation is needed. In the rare instance that a patient's nurse cannot be identified and/or contacted, any staff member may activate the rapid response team by calling the page operator's stat paging line ext. 111.
- The nurse will tell the page operator which of the four RRTs they wish to activate based on the patient's clinical service. If the nurse is unsure, the Medical RRT will be activated.

3. The patient's nurse will begin documenting the response by completing section 1 of form HH 1013, the *Rapid Response Record* and document assessment in the nursing notes.

B. Response

1. Upon notification of a rapid response, the RRT members will respond to the patient's bedside immediately. The goal is to have all members of the team at the patient's bedside within 5 minutes of the call being placed.
2. Telephone orders for treatments will not be accepted by the nurse once a rapid response has been called. Telephone orders for urgent diagnostic studies will be accepted.
3. The first job of the RRT responders will be to assess the situation and provide immediate stabilizing treatment.
4. The physician member of the team will determine the identity of the patient's existing medical team and contact the intern currently covering that patient, if he/she is not already present.
5. The patient's nurse will provide any needed medical information and nursing interventions. The nurse remains accountable for the patient during the RRT response.

C. Disposition

1. The respiratory care practitioner from the RRT may be released when the RRT physician determines that he/she is not needed and/or he/she is relieved by another respiratory therapist.
2. The physician from the RRT may be released when care is turned over to another R2 or higher, or he/she has determined that the patient is stable and does not require further urgent intervention. The RRT physician will complete section 2 of Form HH 1013, the *Rapid Response Record* prior to leaving the immediate area. If care is immediately handed over to another resident (PGY 2 or above), completion of the form may also be delegated to that person.
3. The patient's nurse documents assessments, interventions, and outcome in the patient's chart.

PLEASE COMPLETE THE STUDY QUESTIONS ON THE NEXT PAGE

RAPID RECOGNITION AND RESPONSE TO CHANGES IN PATIENT CONDITION

Study Questions

Select the best answer to each question. **DO NOT** write in the manual.

1. The ultimate form of clinical deterioration is:
 - a. Chest pain
 - b. Respiratory distress
 - c. A very fast heart rate
 - d. Respiratory or cardiac arrest
2. A patient is admitted to the cardiology service with a diagnosis of CHF. If this patient were to require an RRT, which RRT should the nurse call?
 - a. Medical RRT
 - b. Surgical RRT
 - c. Pediatric RRT
 - d. OB/GYN RRT
3. The nurse identifies that the patient is not responding and appears in cardiac arrest. The nurse should page:
 - a. The primary physician
 - b. Respiratory Department
 - c. The Rapid Response Team
 - d. The Code Blue/White Team
4. According to researchers and healthcare improvement agencies, patients show signs many hours before the Code Blue/White is called. Nurses can identify these signs by monitoring patients:
 - a. Every four hours
 - b. At the end of each shift
 - c. Ongoing throughout the shift
 - d. At the beginning of each shift
5. Which observation in a 5 day old patient would identify a need for the nurse to call the RRT?
 - a. An acute decrease in heart rate to 110
 - b. An acute increase in respiratory rate to 40
 - c. An acute decrease in systolic blood pressure to 50
 - d. An acute increase in oxygen saturation above 96%
6. Which observation in a 3 month old patient would identify a need for the nurse to call the RRT?
 - a. An acute decrease in heart rate to 60
 - b. An acute increase in respiratory rate to 30
 - c. An acute increase in oxygen saturation above 98%
 - d. An acute decrease in systolic blood pressure to 100
7. Which observation in an 8 year old patient would identify a need for the nurse to call the RRT?
 - a. An acute increase in heart rate to 100
 - b. An acute increase of respiratory rate to 30
 - c. An acute increase in oxygen saturation above 96%
 - d. An acute decrease in systolic blood pressure to 100

8. Which observation in a 50 year old patient would identify a need for the nurse to call the RRT?
 - a. An acute increase in heart rate to 110
 - b. An acute increase in respiratory rate to 20
 - c. An acute decrease in oxygen saturation below 90%
 - d. An acute decrease in systolic blood pressure to 100
9. Normal and abnormal vital signs parameters for the RRT can be found:
 - a. In the crash cart
 - b. In the patients chart
 - c. In the hospital policy manual
 - d. On the Harbor-UCLA Intranet
10. Which of the following is **NOT** a sign of clinical deterioration:
 - a. Acute change in heart rate
 - b. Acute change in mental status
 - c. Severe, uncontrolled bleeding
 - d. Sudden change in blood sugar

CHECK YOUR ANSWERS TO THE STUDY QUESTIONS

Answers to Study Questions

1. d
2. a
3. d
4. c
5. c
6. a
7. b
8. c
9. c
10. d

If you answered 8 out of 10 questions correctly, go on to the next section. If you missed 3 or more, read the content again and repeat the study questions.

RAPID RECOGNITION AND RESPONSE TO CHANGES IN PATIENT CONDITION
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BLOOD PRODUCTS AND TRANSFUSION

Objectives:

Upon completion of this section, the nurse will be able to:

1. List the documentation requirements needed prior to administration of blood products
2. Describe the process for confirm type
3. Differentiate between type and screen and type and cross
4. Discuss the role of the RN and LVN related to transfusion of blood products
5. List information that must be verified prior to initiation of transfusion
6. Describe at least one indication for each type of blood product
7. Discuss administration parameters of specific blood products
8. Discuss transfusion reactions and identify appropriate nursing interventions
9. Identify the time frame in which a blood/blood product transfusion must be initiated after pick up from Blood Bank
10. Identify the maximum patient temperature allowed prior to initiation of blood transfusion
11. State the individual to which a blood product may be delivered if picked up by non-licensed personnel.
12. Describe the process for handling an unhung unit of blood at time of patient transfer.

Instructions to the employee:

Please read the following section, then answer the study questions at the end of this section.

Licensed staff assigned to the following areas/roles **do not** need to complete the Blood Products and Transfusion section: 8West , Ambulatory Care (licensed staff working in Infusion Clinic must complete the competency), CRU, Employee Health, Patient Flow Facilitator, Psych ER, Urgent Care Clinic, Wound Care Team.

BLOOD PRODUCTS AND TRANSFUSION

Refer to the following policies/procedures:

Blood and Blood Products Transfusion, Administration and Monitoring. *Department of Nursing Procedure Manual*. Torrance, CA Harbor-UCLA Medical Center; 2010. p. 50.0

Blood and Blood Products Transfusion, Administration and Monitoring. *Hospital and Medical Administration Policy and Procedure Manual*. 2005. Policy #317B.

I. INTRODUCTION

Administration of blood products is a multistep process requiring the coordination of several members of the healthcare team. The physician determines the need and orders the blood product, speaks with the patient and obtains informed consent for the transfusion. The IV certified RN and LVN ensure that all the required paperwork is in order, initiate and monitor the transfusion, and record the patient's vital signs, while observing for signs and symptoms of transfusion reaction. The Blood Bank plays a key role in preparing the blood products for transfusion and verification of information prior to release of the blood product.

This competency highlights some of the key safety points related to blood and blood product administration. The competency is not meant to be a reiteration of existing policies and procedures. Refer to the above policies and procedures for complete procedural steps related to the administration of blood and blood products.

II. REQUIREMENTS

A. Informed Consent and Paul Gann Requirement

All patients receiving transfusions of blood or blood derived product should provide consent prior to the initiation of the transfusion. There is an exception made in the event of life or limb threatening emergency only. It is the role of the physician to discuss the need for transfusion with the patient and inform the patient of the risks and benefits of transfusion. The physician will obtain the patient's signature and signature of a witness on the consent form *Informed Consent to Transfusion of Blood and Blood Products* (HH1009), available in English and in Spanish. The physician will also obtain the patient's signature and signature of witness on the State Department of Health Services form *If You Need Blood: A Patient's Guide to Blood Transfusions* (HH687), also available in English and in Spanish. A translator may be required, if so, the *Interpreter Attestation During Informed Consent Form* (HH1001) must be completed. HH687 is required by California State Law as specified in the Paul Gann Act.

If a patient or legal representative refuses blood transfusion after the risks, benefits and alternatives have been explained, the *Refusal to Permit Blood Transfusion* (Form HH256) shall be signed and placed in the front of the medical record. This refusal shall be communicated immediately to the patient's primary care nurse. If a refusal form is present, the nurse will ensure that a sticker noting "No Blood Products" is placed on the chart indicating the refusal.



Prior to administering blood products, the IV certified RN/LVN checks that consent forms have been completed and original copies are placed in the medical record.

B. “Type and Screen”, “Type and Cross”, Confirm Type

1. Prior to receiving a blood/blood product transfusion, the patient must have his/her blood “typed” in order to ensure that the patient receives a product compatible to the patient’s own blood type. ABO incompatible transfusions can be fatal, even if only a fraction of the unit is transfused.
2. A “**type and screen**” determines the blood **type** (ie, ABO) and Rh group (eg, Rh positive or Rh negative) of red blood cells, and **screens** serum for the presence of potentially hemolyzing antibodies. A “type and screen” is usually ordered for patients who will probably not require blood transfusion during surgery or other procedure. Providing that the antibody screen is negative, donor blood is not crossmatched and reserved for the patient. Once the type and screen is done, if blood is unexpectedly required during surgery, it can be quickly (within 5 minutes) crossmatched because the blood bank has a record of patient ABO and Rh types, as well as the negative antibody screen. The original “type and screen” specimen can be converted to a “type and cross” without the need for a new specimen. If an unexpected antibody is detected during the type and screen, it is identified and donor blood must be antigen typed. Therefore, it is advisable to request crossmatched blood if there is a reasonable expectation of need when a patient has an antibody because of the additional time required.
3. A “**type and cross**” is a laboratory test done to confirm that blood from a donor and blood from the recipient are compatible. The same procedure described in “type and screen” is performed with the addition of checking cells from a donor unit with plasma from a patient to rule out unexpected incompatibility. This is known as the cross-match. With a “type and cross” specific donor product units are set up and ready to issue for a specific recipient.

Once donor blood is crossmatched with a potential recipient, the units are available for only 3 days. This is because the specimen used to cross-match is canceled automatically the third day after the specimen is drawn. This three day expiration is a regulation designed to aid in detecting antibodies that may be forming, especially when patient has been transfused within past three months. If the patient has not had a previous transfusion and is not pregnant the Blood Bank may be consulted to determine if the cross matched unit(s) may be held longer in rare circumstances.

4. Confirm type

In order to protect against potentially fatal labeling errors, a 'confirm type' specimen will be requested on any patient without a history in the Blood Bank and who is not group O. Most patients will not require a 'confirm type'. If a patient has a blood type on record at Harbor-UCLA, that blood type will count as the first draw and any new specimen is the confirm specimen or clot. Also, any new patients who are group O do not need confirmation as O is the universal donor. When a 'confirm type' is required, the Blood Bank staff will call the unit and ask for a second specimen. The **confirm type specimen is to be a second draw**, preferably by another person. This confirm type specimen may be requested by the blood bank per protocol (no additional prescriber order needed) for any type and screen or type and cross order that meets criteria for the confirm type sample.

III. ADMINISTRATION OF THE TRANSFUSION

A. Roles and Responsibilities

Registered nurses and licensed vocational nurses state-certified in IV therapy, who have completed IV Therapy Part I and II at HUCLA may participate in blood transfusions. Table 1 identifies the roles.

LVNs not certified in IV therapy may participate in patient preparation, teaching regarding blood transfusion, observation of patients receiving transfusions, and interventions as appropriate in response to signs of a transfusion reaction.

Table 1. Role of IV certified RNs and LVNs.

IV Certified RN and IV Certified LVN
<ol style="list-style-type: none"> 1. May start packed red cells, whole blood, platelets, fresh frozen plasma and cryoprecipitates, including any irradiated blood products, via peripheral lines on patients. 2. May transfuse patients through the lower extremities when deemed necessary by a physician and accompanied by a physician's written order. 3. Does not transfuse patients whose temperature is greater than 100° F without a physician's written order. 4. Will not transfuse blood under positive pressure (eg, Tyco Pump) except as described below. 5. Will not use blood warming devices except as described below.
IV certified RN
<ol style="list-style-type: none"> 1. May use long term venous access devices (eg, Hickman, Port-a-Cath), jugular lines and central lines when necessary to administer blood products, following correct procedures for line access.
IV Certified RN assigned to Adult Critical Care, Emergency Nursing, Labor and Delivery, PACU, and Pediatrics (6E, PICU, NICU and Level II Nursery)
<ol style="list-style-type: none"> 1. May use positive pressure (eg, Tyco Pump) in extreme emergencies to administer blood products. 2. May use blood warming devices when necessary. 3. May transfuse patients through lower extremities when necessary without a physician's order (6E, 6EICU, NICU, Level II Nursery).

B. Preparation for Transfusion

A series of checks is carried out prior to beginning a transfusion. The RN/LVN verifies there is a complete *Transfusion Order Form* (HH597). This order must include:

- type of product
- number of units
- infusion rate if different from standard and fluid restrictions (if appropriate)

The IV certified RN/LVN will verify the presence of the informed consent in the patient's medical record: *Informed Consent to Transfusion of Blood or Blood Products*, (HH1009) and the State Department of Health Services *If You Need Blood: A Patient's Guide to Blood Transfusions* (HH687E-PL).

The patient's vital signs (including temperature) must be taken within 30 minutes prior to starting the transfusion and before the blood is picked up. If the temperature is 100°F or above, the transfusion should be held and physician notified. The RN will only transfuse patients whose temperature is less than 100°F, unless there is a specific written order to transfuse the patient with a temperature of greater than 100°F.

C. Obtaining Blood/Blood Products

Verification of correct blood/blood product and patient begins during the pick up of the blood product. Any nursing employee, physician or volunteer may pick up blood products. The Blood Bank Technologist and the person picking up the blood together will verify the identification of the patient, the blood group and Rh type, donor number, expiration date and time by comparing the information from the *Transfusion Record* (HH964), Compatibility Tag, Unit Label and Physician Order according to the procedure posted at the Blood Bank. The Blood Bank Technologist fills in the date, time of release, the amount, and signs as having released the unit on the *Transfusion Record*. The individual who picks up the unit also signs the *Transfusion Record* as having received the unit and verified the information.



In the event a non-licensed staff or volunteer picks up the blood product, he/she is to give the products obtained from the Blood Bank directly to **licensed direct care giver** who will be transfusing the blood.



If for any reason blood is picked up and administration is not initiated within a few minutes, the product must be returned to the Blood Bank **within 20 minutes** for proper storage. All unused blood products must be returned to the Blood Bank. Blood products may not be stored in a ward/unit refrigerator.

D. Verification of Patient Identity

At the bedside, the RN/LVN hanging the blood/blood product must verify with another licensed individual that the information on the *Transfusion Record* form, the blood label on the unit, the compatibility tag and the patient's identification band are the same by comparing the information according to the Table 2.

Table 2. Verification of Transfusion Information.

	Transfusion Record Form	Compatibility Tag	Unit Label	Pt Id Bracelet
Patient's Name	X	X		X
Patient's MRUN	X	X		X
Recipient's Type	X	X		
Donor Type/Unit Group Rh	X	X	X	
Donor Number	X	X	X	
Expiration Date/Time	X	X	X	



NOTE: An RN must verify the information with another RN, LVN, or MD. An LVN must verify with an RN or MD, and may **not** verify with another LVN. NOTE: If any of the elements do not match, the blood must be returned to the Blood Bank immediately. **DO NOT TRANSFUSE.**

E. Inspection of the Unit

Prior to hanging the product, the RN/LVN will inspect the unit for any abnormalities:

- Container intact, no leaks
- Abnormal appearance
- Cloudy appearance
- Excessive hemolysis
- Significant color change in blood bag as compared with tubing segments

If there are any problems with the unit, **DO NOT TRANSFUSE - return blood to the Blood Bank immediately.**

F. Transfuse and Monitor the Patient

After verification of patient identity, the transfusion is begun. The patient should be observed closely and vital signs recorded during the initiation phase (first 15 minutes) of the transfusion on the *Transfusion Record*. If no untoward reactions are observed, the flow rate is adjusted to infuse within the ordered time. Most fatal incompatible transfusion reactions produce symptoms early in the course of the infusion.

The assigned responsible RN/LVN monitors the patient's vital signs and observe for signs of reaction at least every hour until the unit is infused. The nurse is responsible for reviewing signs of transfusion reaction with the patient and instructing him/her to notify the nurse immediately if any symptoms are experienced (see Appendix A).



Do NOT transfer a patient to another area of the hospital with a blood product picked up from Blood Bank but not yet infusing. Return the blood product to the Blood Bank.

If a blood transfusion is in progress and the patient needs to be transferred, an RN or IV certified LVN must accompany the patient to maintain ongoing monitoring of unfinished blood product. The status of the transfusion and the ongoing monitoring requirements will be included in the "hand off" communication.

IV. BLOOD PRODUCTS

A. Types of Blood Products

Refer to Table 3 for an overview of types and indications of various blood products.

Table 3. Types of Blood Products.

Product	Indication
Packed Red Blood Cells (PRBCs) and Whole Blood	Increases oxygen carrying capacity by increasing volume of circulating RBCs. Used for symptomatic anemia.
Fresh Frozen Plasma (FFP)	Source of plasma proteins, including coagulation factors. Indicated for management of preoperative or bleeding patients requiring replacement of multiple coagulation factors (eg, liver disease, DIC). Patients undergoing massive transfusion who have clinically significant coagulation deficiencies.
Platelets	Treatment of thrombocytopenia, dysfunctional platelet disorders, active platelet-related bleeding, or prophylactic use for serious risk of bleeding. Medical conditions, including leukemia, solid tumors, central nervous system trauma.
Cryoprecipitate	Serves as a source for clotting factors: fibrinogen, Factor VIII, Factor XIII, vWF and fibronectin. Used for the control of bleeding associated with fibrinogen deficiency and treatment of Factor XIII deficiency.
Leukapheresis (Granulocytes, Lymphocytes, Monocytes)	Treatment of neutropenic patients with documented infections unresponsive to antimicrobial therapy. Neonatal sepsis.

B. Transfusion Guidelines

There are general guidelines that apply to blood/blood product administration:

1. All blood components must be transfused through a filter designed to remove clots and aggregates.
2. The tubing should be changed after every second unit of blood/blood product transfused.
3. No medications or solutions should be added to or infused through the same tubing with blood/blood products other than normal saline.
4. Medications may not be added to blood/blood products.
5. The transfusion order must be rewritten if blood/blood product was not given within 48 hours of the time ordered.
6. Proper rate ensures that the unit will infuse within the recommended time. If the patient's condition requires a slower infusion rate, it should be noted on the physician's order.
Arrangements may be made with the Blood Bank to split a unit if indicated. Refer to Table 4 for administration guidelines.

Table 4. Administration of Blood Products.

Product	Filter	Administration Rate (As Ordered)	Maximum Infusion Time	Comments
Packed Red Blood Cells (PRBCs) & Whole Blood	170-260 micron	Infuse over 2-3 hours	Max of 4 hrs/unit	
Fresh Frozen Plasma (FFP)	170-260 micron	Infuse as rapidly as tolerated (usually within 1 hour)	Max of 4 hrs/unit	Obtain coagulation panel prior to administration.
Platelets	170-260 micron	Infuse rapidly using gravity flow	Max of 4 hrs/unit	Do NOT use IV pump. Syringe pump may be used to administer small volumes to infants.
Cryoprecipitate	170-260 micron	Infuse rapidly, in less than 1 hour	Expires 4 hours after preparation in Blood Bank	Obtain fibrinogen level prior to administration.
Leukapheresis (Granulocytes, Lymphocytes, Monocytes)	170-260 micron Do not use microaggregate filter	Infuse over 1-4 hours or as ordered	Max of 4 hrs/unit	
Factor VII, VIII, IX	Filter contained in package	Usually 5-10 minutes or less	Check package insert for guidelines Reconstituted product must be administered within 3 hours	Obtain complete package from Blood Bank (diluent, concentrate, transfer and filter needles). Reconstitute according to package directions.

Neonates: Blood products are pre-filtered to permit infusion through a syringe pump and the syringe is labeled with this information.

7. If the transfusion is interrupted (eg, IV infiltrates), the transfusion may be reinitiated and completed or administered until the maximum infusion time has elapsed. Once the maximum infusion time has elapsed, the transfusion must be stopped and remaining blood/blood product discarded.

Transfusion must be completed by 1400.

Examples:

A transfusion of 1 unit of PRBCs is begun at 1000. At 1200, the IV infiltrates. The nurse is able to restart the IV within 20 minutes and the transfusion is completed at 1300 (3 hours).

Transfusion must be completed by 1200.

A transfusion of 32 mL of PRBCs is begun at 0800 on a premature infant and ordered to run over 4 hours (8 mL/hr). At 1100, the IV infiltrates and 8 mL of blood remains to be transfused. An IV can not be successfully inserted before 1200. The PRBCs must be discarded. The nurse should notify the prescriber so that additional PRBCs can be ordered.

C. Transfusion Reaction

When the transfusion is complete, the post transfusion vital signs are taken and compared against the baseline vital signs. The patient will be observed for four (4) hours following transfusion for signs of transfusion reaction. The nurse will review the signs of delayed transfusion reaction with the patient and counsel him/her to report any abnormal signs or symptoms experienced over the next few months, and to notify his/her healthcare provider about the transfusion when seeking care for any illness or condition.

Refer to Appendix A for a listing of potential transfusion reactions. A transfusion reaction may occur immediately or may be delayed. A patient may experience symptoms such as chills and fever within a few minutes, while an infectious disease may incubate for several months. Reactions with a short onset include acute hemolytic, febrile, nonhemolytic, mild allergic to anaphylactic, circulatory overload, sepsis and Transfusion Related Acute Lung Injury (TRALI). TRALI is a leading cause of transfusion mortality in the United States.¹ Signs and symptoms of TRALI include dyspnea, hypoxemia, cyanosis, fever, hypotension, non-cardiogenic pulmonary edema, and pulmonary infiltrates on chest xray,

If any transfusion reaction is suspected, the nurse monitoring the patient must stop the transfusion immediately. If an LVN identifies the suspected reaction, she/he must immediately notify the assigned responsible RN. Stopping the transfusion immediately may limit the extent of potential injury to the patient. The Blood Bank may provide helpful consultation in the management of these patients.

The assigned responsible RN/LVN will verify patient identity with the paper blood bag tag and sign on *Report of Transfusion* section of *Transfusion Record* that patient identification was verified. Disconnect the transfusion from the extension set and flush the extension set with a normal saline flush. Infuse normal saline at 30 mL/hour with a new set of IV tubing. Note: *Neonatal/Pediatric-Infuse NS only if ordered*. Notify the physician and the Blood Bank immediately. All transfusion reactions, however minor, must be reported to the Blood Bank immediately. Continue to monitor the vital signs until the patient's condition is stable. Document assessments, interventions and evaluations on the appropriate nursing record. The physician will complete "*Report of Transfusion Reaction*" section on the *Transfusion Record*. Send *Transfusion Record*, the entire transfusion set, lab copy, pink top tube, and any additional specimens the Blood Bank may request to the Blood Bank. The decision to reinstate the transfusion rests with the physician following consultation with the Blood Bank.

V. SUMMARY OF KEY SAFETY POINTS

- The *Informed Consent to Transfusion of Blood and Blood Products* (HH1009) and *If You Need Blood: A Patient's Guide to Blood Transfusion* (HH687) must be completed and in the medical record for all patients receiving non-emergent blood transfusion. Writing "blood transfusion" on a surgical consent is not acceptable as informed consent.
- If a patient or legal representative *refuses* blood transfusion, the *Refusal to Permit Blood Transfusion* (HH256-MR) must be signed and placed in the front of the medical record. The nurse must also place a sticker on the chart noting "No Blood Products".
- Blood may be transfused only if patient's temperature is *less than 100°F* (unless there is a specific order to transfuse with a temperature greater than 100°F).
- Non-licensed staff or volunteer who pick up blood or blood products must give the product directly to the *licensed* direct care provider who will be administering the transfusion.
- A "confirm type" specimen must be a *separate draw* from the original "type and screen" or "type and cross", preferably drawn by another person.

- If blood administration is not initiated within *20 minutes* from pick up from the Blood Bank, the blood must be returned to the Blood Bank.
- An IV Certified LVN must verify information on the *Transfusion Record* form, compatibility tag, unit label and patient identification bracelet with an *RN or MD*, not another LVN.
- *Unhung* blood product may not accompany a patient during transfer to another area of the hospital. Blood may accompany a patient during transfer only if the product is hung and infusing.

Members of the healthcare team have specific roles in the preparation, administration and monitoring of blood/blood product transfusions. Policies and procedures are in place to provide guidelines for this process. Adherence to these guidelines helps ensure a safer transfusion process.

PLEASE COMPLETE THE STUDY QUESTIONS

APPENDIX A TRANSFUSION REACTIONS

TRANSFUSION REACTIONS				
REACTION TYPE	ONSET	SIGNS AND SYMPTOMS	CAUSE	PREVENTION
Acute hemolytic	Usually during first 5 to 15 minutes, but may occur at any time during administration	Chills, fever, a feeling of heat at infusion site, low back pain, tachycardia, hypotension, shock, renal failure	Infusion of ABO incompatible blood	Verify and document patient identification from sample collection to transfusion.
Febrile, nonhemolytic	Within 6 hours of transfusion	Sudden chills and fever (rise of $> 2^{\circ}$ F), headache, flushing, muscle pain	Sensitization to donor's white blood cells	Administer blood products with leukocyte-depleting filter.
Mild allergic	Within 6 hours of transfusion	Flushing, itching, hives	Sensitivity to foreign plasma proteins	Treat prophylactically with antihistamines
Anaphylactic	Immediate	Anxiety, hives, wheezing, tightness in chest, difficulty swallowing progressing to cyanosis, shock, cardiac arrest	Infusion of IgA proteins to IgA deficient recipient who has developed IgA antibody	Transfused washed or deglycerolized RBC's or use blood from IgA deficient donor
Circulatory overload	Dependent on clinical condition, volume, and rate of infusion	Cough, dyspnea, pulmonary edema, hypertension, tachycardia, jugular venous distension	Fluid administered faster than the circulation can accommodate	Adjust flow rate based on patient's condition. Have blood bank split units of blood products for patients at risk for fluid overload
Sepsis	Dependent on degree of contamination and clinical condition of the host	Unexpected fever, chills, altered level of consciousness, vomiting, diarrhea, shock	Infusion of contaminated blood products	Collect, process, and store blood according to blood bank regulations. Examine blood components carefully before administration for purplish discoloration, visible gas bubbles, or obvious clots. Start transfusions within 20 minutes of blood pick up and complete within 4 hours.

TRANSFUSION REACTIONS				
REACTION TYPE	ONSET	SIGNS AND SYMPTOMS	CAUSE	PREVENTION
Transfusion Related Acute Lung Injury (TRALI)	During the transfusion or up to 6 hours following the transfusion.	Dyspnea, cyanosis, hypoxemia, fever, hypotension, chills, non-cardiogenic pulmonary edema, infiltrates on chest xray	Anti-HLA or anti-granulocyte antibodies in the donor plasma are the most common etiology. This causes sequestration and degranulation of WBCs in the pulmonary capillary bed	Blood collection centers are mandated to mitigate TRALI risk. This is most often done by excluding female donors from production of plasma based products or using donors with few pregnancies. Treatment should be supportive. Maintain circulatory support and intubate if necessary. Diuresis is contraindicated. The use of steroids has not been found to be beneficial.

DELAYED TRANSFUSION REACTIONS				
REACTION TYPE	ONSET	SIGNS AND SYMPTOMS	CAUSE	PREVENTION
Delayed Hemolytic	2-14 days post transfusion (can occur from 3 days to several weeks post transfusion)	Fever, mild jaundice, decreased hematocrit/hemoglobin	The destruction of transfused RBC's by alloantibodies not detectable during pre-transfusion testing	Crossmatch blood sample should be drawn within 3 days prior to blood transfusion
Iron Overload	Occurs over time in patients who chronically receive transfusions	Congestive heart failure, dysrhythmias, diabetes, cirrhosis	Deposition of iron in the heart, endocrine organs, liver, spleen, skin, and other major organs as a result of multiple (>100) long-term transfusions	
Graft versus host disease	7-14 days post transfusion	Fever, faint red rash, diarrhea, hepatitis	Replication of donor lymphocytes in the transfused patient	Administer irradiated blood products to susceptible patients

NONIMMUNOLOGIC COMPLICATIONS				
Hepatitis B	Incubation period 1-6 months	Anorexia, malaise, nausea, vomiting, fever, dark urine, jaundice	Transfusion of Hepatitis B infected blood product	Screen blood donors and pretest blood products
Hepatitis C	Incubation period 2 weeks-3 ½ months	Similar to Hepatitis B but less severe	Transfusion of Hepatitis C infected blood products	Screen blood donors and pretest blood products
HIV-1	May be asymptomatic for several years or develop flu-like syndrome within 2-4 weeks	Night sweats, unexplained weight loss, diarrhea, fever, lymphadenopathy	Transfusion of HIV infected blood products	Screen blood donors and pretest blood products

DELAYED TRANSFUSION REACTIONS				
REACTION TYPE	ONSET	SIGNS AND SYMPTOMS	CAUSE	PREVENTION
Epstein-Barr virus, cytomegalovirus, malaria		Viral syndrome and signs specific to particular infecting agent	Transfusion of infected blood products	Screen blood donors
Other infections (eg, Chagas disease, Bahesiosis, unknown viruses)	Varies	Vary	Transfusion of infected blood products	Apply good blood banking practices and donor screening/testing. Avoid unnecessary transfusion.

BLOOD PRODUCTS AND TRANSFUSION

Study Questions

Select the best answer to each question. **DO NOT** write in the manual.

1. Which of the following items must be completed prior to non-emergent administration of blood and blood products?
 - a. *Informed Consent to Surgery* listing surgical procedure and possible blood transfusion
 - b. A complete physician's order for blood or blood product and *Refusal to Permit Blood Transfusion*
 - c. *Refusal to Permit Blood Transfusion* and *Informed Consent to Transfusion of Blood and Blood Products*
 - d. *If You Need Blood: A Patient's Guide to Blood Transfusions* and *Informed Consent to Transfusion of Blood and Blood Products*
2. A "confirm type" specimen:
 - a. Is required for group O patients only
 - b. Is ordered on all patients at Harbor-UCLA
 - c. Requires a second blood draw, preferably by a second provider
 - d. Requires two specimens to be drawn at the same time by same provider
3. Which of the following definitions is correct?
 - a. Type and Screen means that the donor's blood has been screened for infection
 - b. Type and Cross means that the recipient's blood has been screened for infection
 - c. Type and Cross means that specific donor product units are set up and ready for use
 - d. Type and Screen means that specific donor product units are set up and ready for use
4. The IV certified RN **and** IV certified LVN:
 - a. May start platelets via peripheral IV lines
 - b. Have the same roles related to blood transfusion
 - c. May use blood warming devices when indicated
 - d. May use central lines to administer blood products
5. The nurse hanging blood/blood products must verify the following prior to beginning administration:
 - a. Patient name, MRUN, and blood type, donor type/unit Group Rh
 - b. Patient name and MRUN, donor type/unit Group Rh and donor number
 - c. Patient name, MRUN, and blood donor type/unit Group Rh, donor number, expiration date and time
 - d. Patient name, MRUN and blood type, patient history of previous blood transfusion, donor type/unit Group Rh, donor number, expiration date and time
6. Which product is indicated for a patient with symptomatic anemia?
 - a. Platelets
 - b. Red blood cells
 - c. Fresh frozen plasma
 - d. Leukapheresis (lymphocytes)

7. Packed red blood cells (PRBCs) should be administered:
 - a. Over 2-3 hours
 - b. Very slowly (up to 6 hours/unit)
 - c. As rapidly as tolerated (usually within 1 hour)
 - d. Up to 72 hours from the time the order was written
8. A patient with dyspnea, cyanosis, fever, hypotension, non-cardiogenic pulmonary edema and pulmonary infiltrates on chest xray following blood transfusion may be experiencing:
 - a. Sepsis
 - b. Anaphylactic reaction
 - c. Acute hemolytic reaction
 - d. Transfusion Related Acute Lung Injury (TRALI)
9. Unless a physician's order specifies otherwise, blood may be transfused only if the patient's temperature is less than:
 - a. 99.0°F
 - b. 100.0°F
 - c. 101.0°F
 - d. 102.0°F
10. Within what time frame must a blood transfusion be initiated after pick up from the Blood Bank?
 - a. 20 minutes
 - b. 30 minutes
 - c. 2 hours
 - d. 4 hours
11. A nursing attendant picks up blood from the blood bank. Upon return to the ward, the nursing attendant must deliver the blood product to the:
 - a. clerk
 - b. charge nurse
 - c. medical student
 - d. licensed care giver who will be administering the blood

CHECK YOUR ANSWERS TO THE STUDY QUESTIONS

Answers to Study Questions

1. d	2. c	3. c	4. a	5. c	6. b	7. a	8. d
9. b	10. a	11. d					

If you missed one or more questions, read the content again and repeat the study questions.

BLOOD PRODUCTS AND TRANSFUSION

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